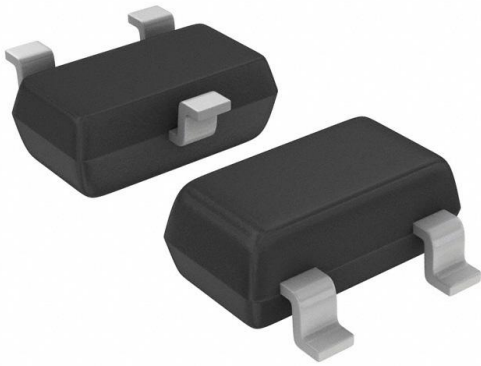


# MUN2216T1G Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	MUN2216T1G-DG
Manufacturer	<a href="#">onsemi</a>
Manufacturer Product Number	MUN2216T1G
Description	TRANS PREBIAS NPN 50V 0.1A SC59
Detailed Description	Pre-Biased Bipolar Transistor (BJT) NPN - Pre-Biased 50 V 100 mA 338 mW Surface Mount SC-59



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

MUN2216T1G

Series:

-

Transistor Type:

NPN - Pre-Biased

Voltage - Collector Emitter Breakdown (Max):

50 V

DC Current Gain (hFE) (Min) @ Ic, Vce:

160 @ 5mA, 10V

Current - Collector Cutoff (Max):

500nA

Mounting Type:

Surface Mount

Supplier Device Package:

SC-59

Manufacturer:

onsemi

Product Status:

Active

Current - Collector (Ic) (Max):

100 mA

Resistor - Base (R1):

4.7 kOhms

Vce Saturation (Max) @ Ib, Ic:

250mV @ 1mA, 10mA

Power - Max:

338 mW

Package / Case:

TO-236-3, SC-59, SOT-23-3

Base Product Number:

MUN2216

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0095

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



# Digital Transistors (BRT)

## $R1 = 4.7 \text{ k}\Omega$ , $R2 = \infty \text{ k}\Omega$

### NPN Transistors with Monolithic Bias Resistor Network

## MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3

This series of digital transistors is designed to replace a single device and its external resistor bias network. The Bias Resistor Transistor (BRT) contains a single transistor with a monolithic bias network consisting of two resistors; a series base resistor and a base-emitter resistor. The BRT eliminates these individual components by integrating them into a single device. The use of a BRT can reduce both system cost and board space.

#### Features

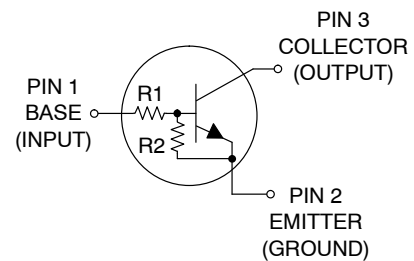
- Simplifies Circuit Design
- Reduces Board Space
- Reduces Component Count
- S and NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

#### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

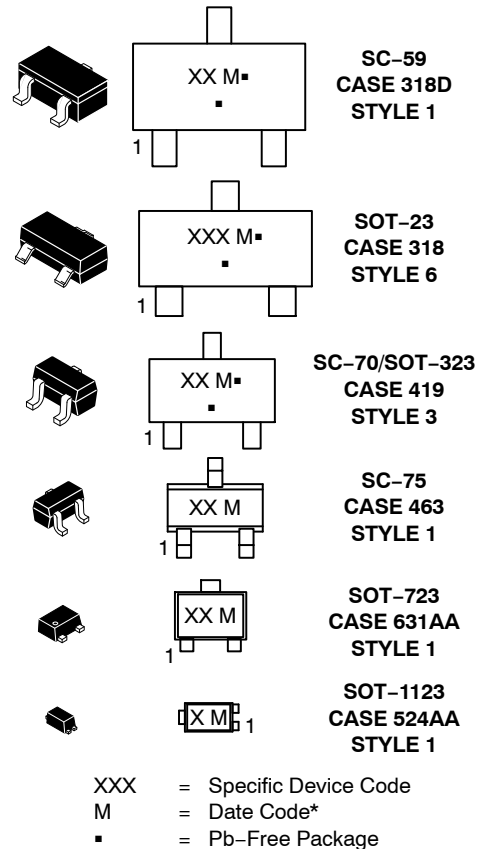
Rating	Symbol	Max	Unit
Collector-Base Voltage	$V_{CBO}$	50	Vdc
Collector-Emitter Voltage	$V_{CEO}$	50	Vdc
Collector Current - Continuous	$I_C$	100	mAdc
Input Forward Voltage	$V_{IN(fwd)}$	30	Vdc
Input Reverse Voltage	$V_{IN(rev)}$	6	Vdc

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

#### PIN CONNECTIONS



#### MARKING DIAGRAMS



(Note: Microdot may be in either location)

\*Date Code orientation may vary depending upon manufacturing location.

#### ORDERING INFORMATION

See detailed ordering, marking, and shipping information on page 2 of this data sheet.

NOTE: Some of the devices on this data sheet have been **DISCONTINUED**. Please refer to the table on page 2.

**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3****Table 1. ORDERING INFORMATION**

Device	Part Marking	Package	Shipping†
MUN2216T1G, SMUN2216T1G	8F	SC-59 (Pb-Free)	3000 / Tape & Reel
MMUN2216LT1G, SMMUN2216LT1G	A8F	SOT-23 (Pb-Free)	3000 / Tape & Reel
SMMUN2216LT3G	A8F	SOT-23 (Pb-Free)	10000 / Tape & Reel
MUN5216T1G, NSVMUN5216T1G	8F	SC-70/SOT-323 (Pb-Free)	3000 / Tape & Reel
DTC143TET1G	8F	SC-75 (Pb-Free)	3000 / Tape & Reel
DTC143TM3T5G	8F	SOT-723 (Pb-Free)	8000 / Tape & Reel

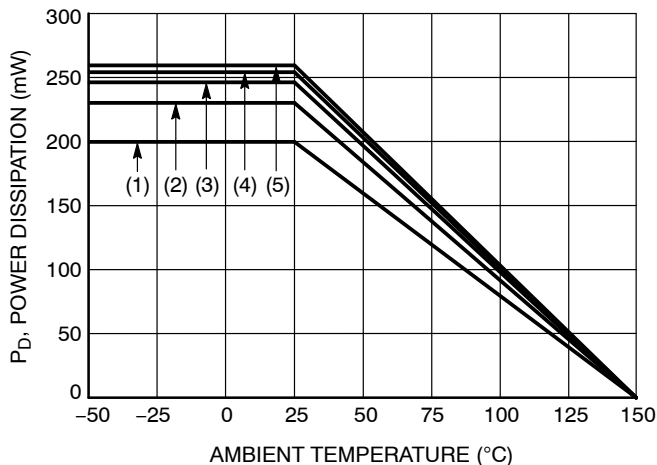
**DISCONTINUED** (Note 1)

NSBC143TF3T5G	F (180°)	SOT-1123 (Pb-Free)	8000 / Tape & Reel
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†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

\* (xx°) = Degree rotation in the clockwise direction.

1. **DISCONTINUED:** This device is not recommended for new design. Please contact your **onsemi** representative for information. The most current information on this device may be available on [www.onsemi.com](http://www.onsemi.com).



- (1) SC-75 and SC-70/SOT323; Minimum Pad
- (2) SC-59; Minimum Pad
- (3) SOT-23; Minimum Pad
- (4) SOT-1123; 100 mm<sup>2</sup>, 1 oz. copper trace
- (5) SOT-723; Minimum Pad

**Figure 1. Derating Curve**

**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3****Table 2. THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
<b>THERMAL CHARACTERISTICS (SC-59) (MUN2216)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 2)	$P_D$	230	mW
Derate above $25^\circ\text{C}$ (Note 3)		338	mW/°C
		1.8	
		2.7	
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	540	°C/W
(Note 3)		370	
Thermal Resistance, Junction to Lead (Note 2)	$R_{\theta JL}$	264	°C/W
(Note 3)		287	
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C
<b>THERMAL CHARACTERISTICS (SOT-23) (MMUN2216L)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 2)	$P_D$	246	mW
Derate above $25^\circ\text{C}$ (Note 3)		400	mW/°C
		2.0	
		3.2	
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	508	°C/W
(Note 3)		311	
Thermal Resistance, Junction to Lead (Note 2)	$R_{\theta JL}$	174	°C/W
(Note 3)		208	
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C
<b>THERMAL CHARACTERISTICS (SC-70/SOT-323) (MUN5216)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 2)	$P_D$	202	mW
Derate above $25^\circ\text{C}$ (Note 3)		310	mW/°C
		1.6	
		2.5	
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	618	°C/W
(Note 3)		403	
Thermal Resistance, Junction to Lead (Note 2)	$R_{\theta JL}$	280	°C/W
(Note 3)		332	
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C
<b>THERMAL CHARACTERISTICS (SC-75) (DTC143TE)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 2)	$P_D$	200	mW
Derate above $25^\circ\text{C}$ (Note 3)		300	mW/°C
		1.6	
		2.4	
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	600	°C/W
(Note 3)		400	
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C
<b>THERMAL CHARACTERISTICS (SOT-723) (DTC143TM3)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 2)	$P_D$	260	mW
Derate above $25^\circ\text{C}$ (Note 3)		600	mW/°C
		2.0	
		4.8	
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	480	°C/W
(Note 3)		205	
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C

**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3****Table 2. THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
<b>THERMAL CHARACTERISTICS (SOT-1123) (NSBC143TF3)</b>			
Total Device Dissipation $T_A = 25^\circ\text{C}$ (Note 4)	$P_D$	254	mW
Derate above $25^\circ\text{C}$ (Note 5)		297	mW/°C
(Note 4)		2.0	
(Note 5)		2.4	
Thermal Resistance, Junction to Ambient (Note 4)	$R_{\theta JA}$	493	°C/W
(Note 5)		421	
Thermal Resistance, Junction to Lead (Note 4)	$R_{\theta JL}$	193	°C/W
Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C

2. FR-4 @ Minimum Pad.
3. FR-4 @ 1.0 x 1.0 Inch Pad.
4. FR-4 @ 100 mm<sup>2</sup>, 1 oz. copper traces, still air.
5. FR-4 @ 500 mm<sup>2</sup>, 1 oz. copper traces, still air.

**Table 3. ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$ , unless otherwise noted)

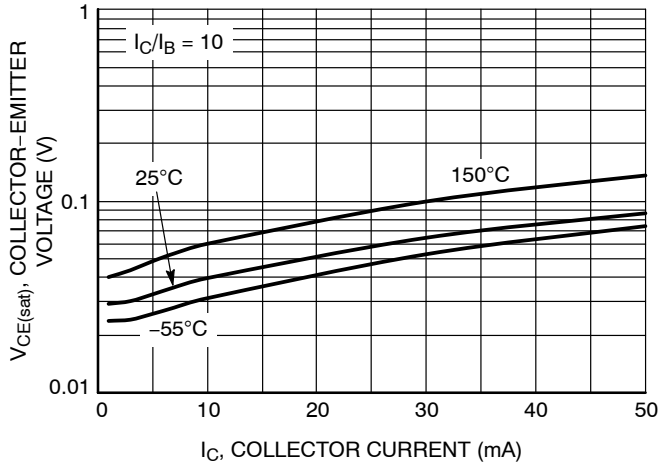
Characteristic	Symbol	Min	Typ	Max	Unit
<b>OFF CHARACTERISTICS</b>					
Collector-Base Cutoff Current ( $V_{CB} = 50\text{ V}, I_E = 0$ )	$I_{CBO}$	-	-	100	nAdc
Collector-Emitter Cutoff Current ( $V_{CE} = 50\text{ V}, I_B = 0$ )	$I_{CEO}$	-	-	500	nAdc
Emitter-Base Cutoff Current ( $V_{EB} = 6.0\text{ V}, I_C = 0$ )	$I_{EBO}$	-	-	1.9	mAdc
Collector-Base Breakdown Voltage ( $I_C = 10\ \mu\text{A}, I_E = 0$ )	$V_{(BR)CBO}$	50	-	-	Vdc
Collector-Emitter Breakdown Voltage (Note 6) ( $I_C = 2.0\text{ mA}, I_B = 0$ )	$V_{(BR)CEO}$	50	-	-	Vdc
<b>ON CHARACTERISTICS</b>					
DC Current Gain (Note 6) ( $I_C = 5.0\text{ mA}, V_{CE} = 10\text{ V}$ )	$h_{FE}$	160	350	-	
Collector-Emitter Saturation Voltage (Note 6) ( $I_C = 10\text{ mA}, I_B = 1.0\text{ mA}$ )	$V_{CE(sat)}$	-	-	0.25	Vdc
Input Voltage (off) ( $V_{CE} = 5.0\text{ V}, I_C = 100\ \mu\text{A}$ )	$V_{i(off)}$	-	0.6	0.5	Vdc
Input Voltage (on) ( $V_{CE} = 0.3\text{ V}, I_C = 10\text{ mA}$ )	$V_{i(on)}$	1.3	0.9	-	Vdc
Output Voltage (on) ( $V_{CC} = 5.0\text{ V}, V_B = 2.5\text{ V}, R_L = 1.0\text{ k}\Omega$ )	$V_{OL}$	-	-	0.2	Vdc
Output Voltage (off) ( $V_{CC} = 5.0\text{ V}, V_B = 0.25\text{ V}, R_L = 1.0\text{ k}\Omega$ )	$V_{OH}$	4.9	-	-	Vdc
Input Resistor	R1	3.3	4.7	6.1	k $\Omega$
Resistor Ratio	$R_1/R_2$	-	-	-	

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

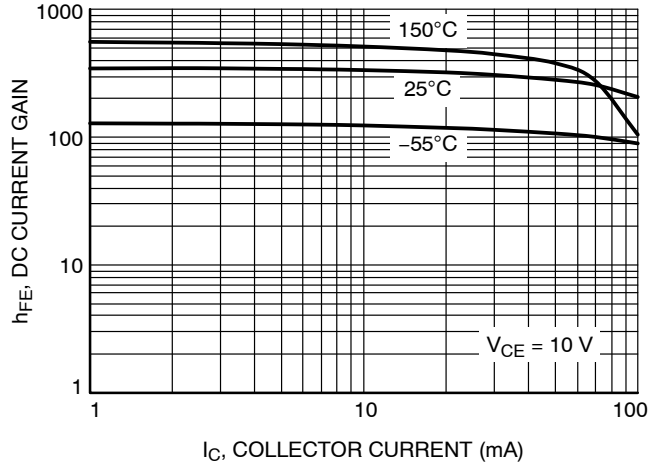
6. Pulsed Condition: Pulse Width = 300 msec, Duty Cycle  $\leq$  2%.

**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3**

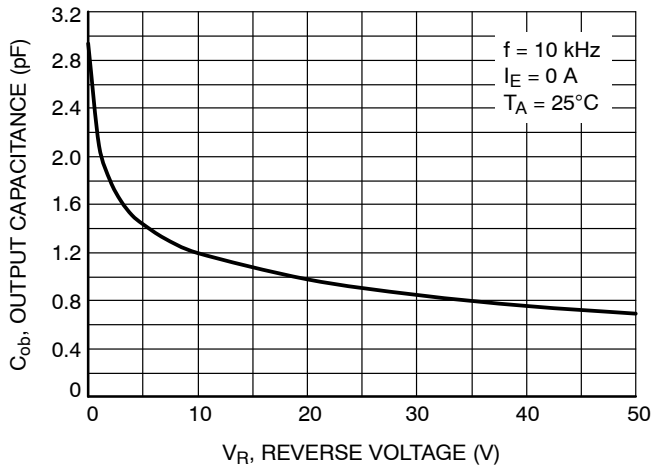
**TYPICAL CHARACTERISTICS**  
**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3**



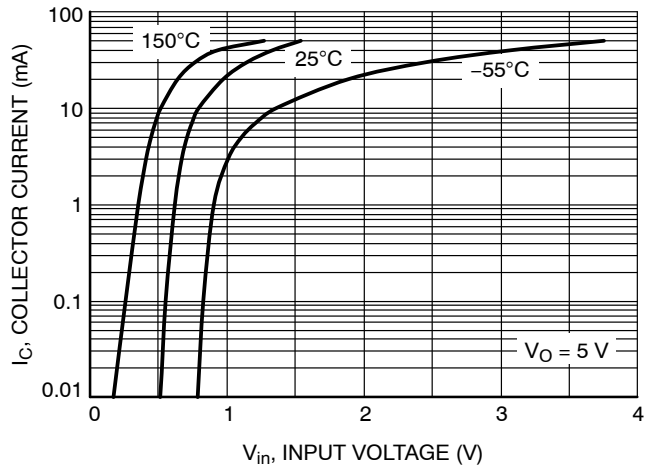
**Figure 2.  $V_{CE(sat)}$  vs.  $I_C$**



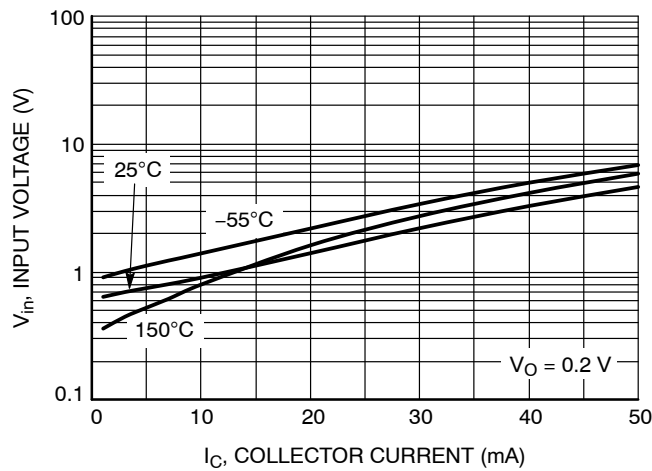
**Figure 3. DC Current Gain**



**Figure 4. Output Capacitance**



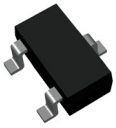
**Figure 5. Output Current vs. Input Voltage**



**Figure 6. Input Voltage vs. Output Current**

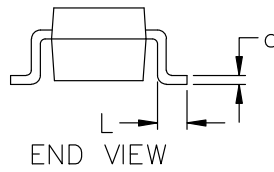
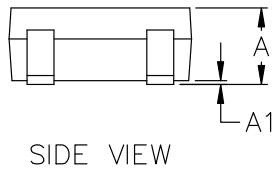
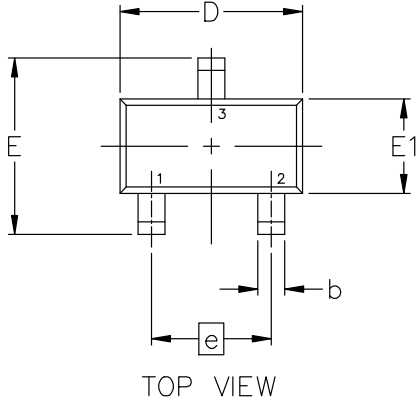
**MUN2216, MMUN2216L, MUN5216, DTC143TE, DTC143TM3, NSBC143TF3**

**PACKAGE DIMENSIONS**



**SC-59-3 2.90x1.50x1.15, 1.90P**  
**CASE 318D**  
**ISSUE J**

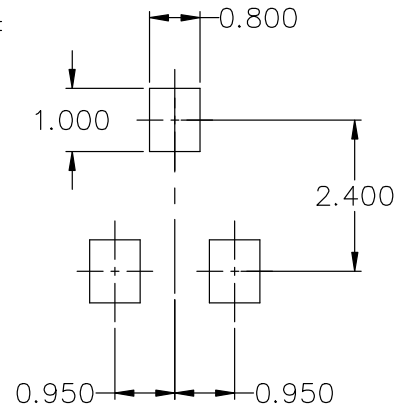
**DATE 15 FEB 2024**



NOTES:

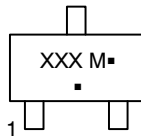
1. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5-2018.
2. ALL DIMENSION ARE IN MILLIMETERS.

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	1.00	1.15	1.30
A1	0.01	0.06	0.10
b	0.35	0.43	0.50
c	0.09	0.14	0.18
D	2.70	2.90	3.10
E	2.50	2.80	3.00
E1	1.30	1.50	1.70
e	1.90 BSC		
L	0.20	0.40	0.60



\* FOR ADDITIONAL INFORMATION ON OUR Pb-FREE STRATEGY AND SOLDERING DETAILS, PLEASE DOWNLOAD THE ON SEMICONDUCTOR SOLDERING AND MOUNTING TECHNIQUES REFERENCE MANUAL, SOLDERRM/D.

**GENERIC MARKING DIAGRAM\***



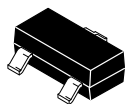
- XXX = Specific Device Code
- M = Date Code
- = Pb-Free Package\*

(Note: Microdot may be in either location)

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

- STYLE 1:  
PIN 1. BASE  
2. EMITTER  
3. COLLECTOR
- STYLE 2:  
PIN 1. ANODE  
2. N.C.  
3. CATHODE
- STYLE 3:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE
- STYLE 4:  
PIN 1. CATHODE  
2. N.C.  
3. ANODE
- STYLE 5:  
PIN 1. CATHODE  
2. CATHODE  
3. ANODE
- STYLE 6:  
PIN 1. ANODE  
2. CATHODE  
3. ANODE/CATHODE

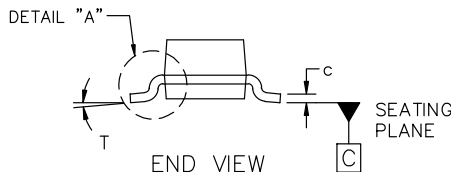
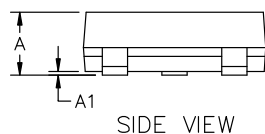
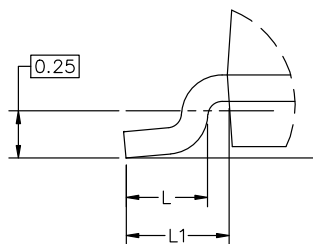
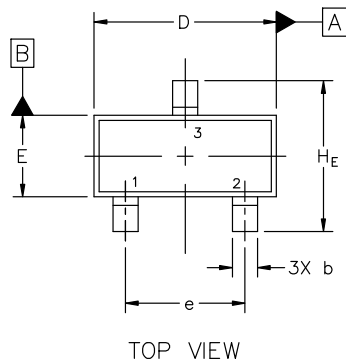




SCALE 4:1

**SOT-23 (TO-236) 2.90x1.30x1.00 1.90P**  
**CASE 318**  
**ISSUE AU**

DATE 14 AUG 2024

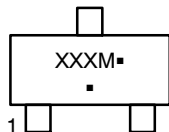


MILLIMETERS			
DIM	MIN	NOM	MAX
A	0.89	1.00	1.11
A1	0.01	0.06	0.10
b	0.37	0.44	0.50
c	0.08	0.14	0.20
D	2.80	2.90	3.04
E	1.20	1.30	1.40
e	1.78	1.90	2.04
L	0.30	0.43	0.55
L1	0.35	0.54	0.69
HE	2.10	2.40	2.64
T	0°	---	10°

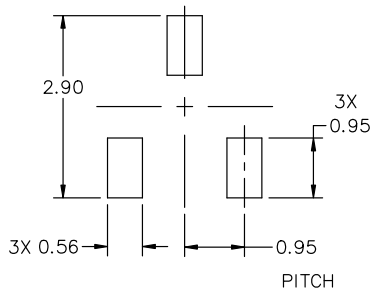
NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSIONS: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF THE BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

**GENERIC MARKING DIAGRAM\***



XXX = Specific Device Code  
M = Date Code  
▪ = Pb-Free Package



\* For additional information on our Pb-Free strategy and soldering details, please download the onsemi Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

**STYLES ON PAGE 2**

<b>DOCUMENT NUMBER:</b>	<b>98ASB42226B</b>	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
<b>DESCRIPTION:</b>	<b>SOT-23 (TO-236) 2.90x1.30x1.00 1.90P</b>	<b>PAGE 1 OF 2</b>

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**SOT-23 (TO-236) 2.90x1.30x1.00 1.90P**  
**CASE 318**  
**ISSUE AU**

DATE 14 AUG 2024

STYLE 1 THRU 5:  
CANCELLED

STYLE 6:  
PIN 1. BASE  
2. EMITTER  
3. COLLECTOR

STYLE 7:  
PIN 1. EMITTER  
2. BASE  
3. COLLECTOR

STYLE 8:  
PIN 1. ANODE  
2. NO CONNECTION  
3. CATHODE

STYLE 9:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE

STYLE 10:  
PIN 1. DRAIN  
2. SOURCE  
3. GATE

STYLE 11:  
PIN 1. ANODE  
2. CATHODE  
3. CATHODE-ANODE

STYLE 12:  
PIN 1. CATHODE  
2. CATHODE  
3. ANODE

STYLE 13:  
PIN 1. SOURCE  
2. DRAIN  
3. GATE

STYLE 14:  
PIN 1. CATHODE  
2. GATE  
3. ANODE

STYLE 15:  
PIN 1. GATE  
2. CATHODE  
3. ANODE

STYLE 16:  
PIN 1. ANODE  
2. CATHODE  
3. CATHODE

STYLE 17:  
PIN 1. NO CONNECTION  
2. ANODE  
3. CATHODE

STYLE 18:  
PIN 1. NO CONNECTION  
2. CATHODE  
3. ANODE

STYLE 19:  
PIN 1. CATHODE  
2. ANODE  
3. CATHODE-ANODE

STYLE 20:  
PIN 1. CATHODE  
2. ANODE  
3. GATE

STYLE 21:  
PIN 1. GATE  
2. SOURCE  
3. DRAIN

STYLE 22:  
PIN 1. RETURN  
2. OUTPUT  
3. INPUT

STYLE 23:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE

STYLE 24:  
PIN 1. GATE  
2. DRAIN  
3. SOURCE

STYLE 25:  
PIN 1. ANODE  
2. CATHODE  
3. GATE

STYLE 26:  
PIN 1. CATHODE  
2. ANODE  
3. NO CONNECTION

STYLE 27:  
PIN 1. CATHODE  
2. CATHODE  
3. CATHODE

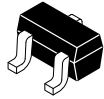
STYLE 28:  
PIN 1. ANODE  
2. ANODE  
3. ANODE

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<b>DESCRIPTION:</b>	<b>SOT-23 (TO-236) 2.90x1.30x1.00 1.90P</b>	<b>PAGE 2 OF 2</b>

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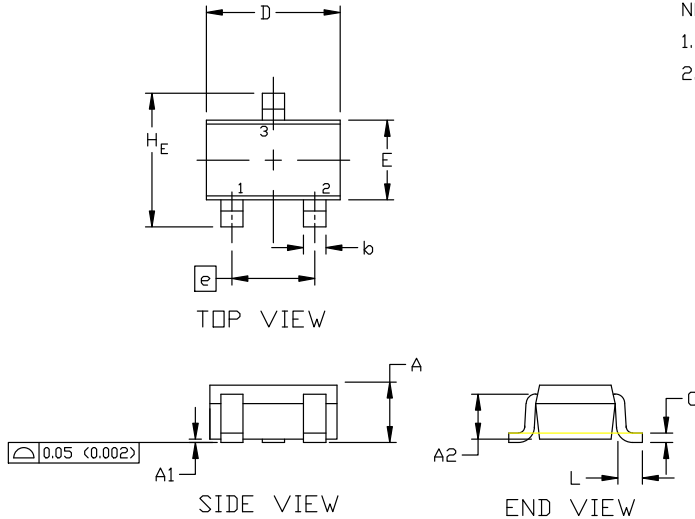
**MECHANICAL CASE OUTLINE  
PACKAGE DIMENSIONS**



SCALE 4:1

**SC-70 (SOT-323)  
CASE 419  
ISSUE R**

DATE 11 OCT 2022

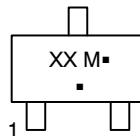


NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH

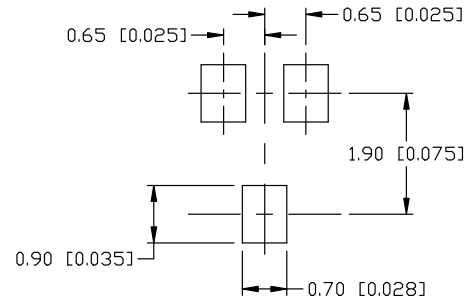
DIM	MILLIMETERS			INCHES		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	0.80	0.90	1.00	0.032	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2	0.70 REF			0.028 BSC		
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.00	2.20	0.071	0.080	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	0.047	0.051	0.055
e1	0.65 BSC			0.026 BSC		
L	0.20	0.38	0.56	0.008	0.015	0.022
H <sub>E</sub>	2.00	2.10	2.40	0.079	0.083	0.095

**GENERIC  
MARKING DIAGRAM**



- XX = Specific Device Code
- M = Date Code
- = Pb-Free Package

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.



\* For additional information on our Pb-Free strategy and soldering details, please download the DN Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

**SOLDERING FOOTPRINT**

- STYLE 1:  
CANCELLED
- STYLE 2:  
PIN 1. ANODE  
2. N.C.  
3. CATHODE
- STYLE 3:  
PIN 1. BASE  
2. EMITTER  
3. COLLECTOR
- STYLE 4:  
PIN 1. CATHODE  
2. CATHODE  
3. ANODE
- STYLE 5:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE
- STYLE 6:  
PIN 1. EMITTER  
2. BASE  
3. COLLECTOR
- STYLE 7:  
PIN 1. BASE  
2. EMITTER  
3. COLLECTOR
- STYLE 8:  
PIN 1. GATE  
2. SOURCE  
3. DRAIN
- STYLE 9:  
PIN 1. ANODE  
2. CATHODE  
3. CATHODE-ANODE
- STYLE 10:  
PIN 1. CATHODE  
2. ANODE  
3. ANODE-CATHODE
- STYLE 11:  
PIN 1. CATHODE  
2. CATHODE  
3. CATHODE

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<b>DESCRIPTION:</b>	<b>SC-70 (SOT-323)</b>	<b>PAGE 1 OF 1</b>

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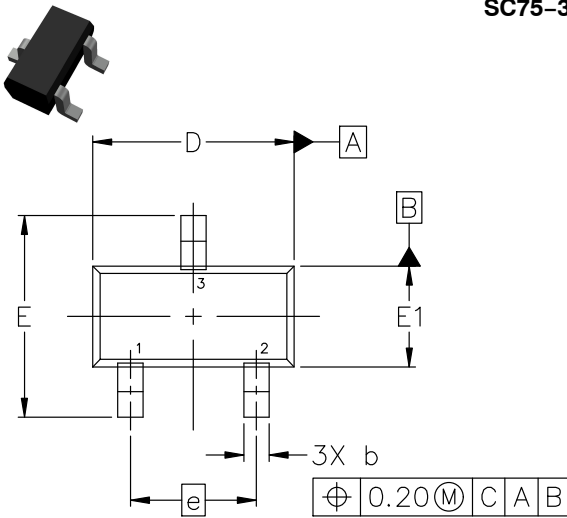
**MECHANICAL CASE OUTLINE**  
**PACKAGE DIMENSIONS**

**SC75-3 1.60x0.80x0.80, 1.00P**  
CASE 463  
ISSUE H

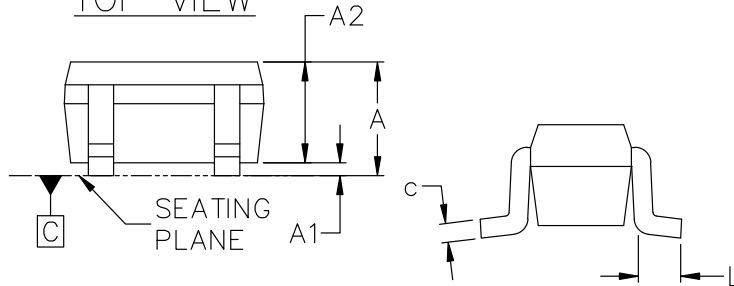
DATE 01 FEB 2024

NOTES:

1. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5-2018.
2. ALL DIMENSION ARE IN MILLIMETERS.



TOP VIEW

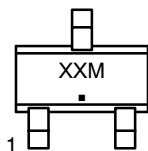


SIDE VIEW

END VIEW

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.70	0.80	0.90
A1	0.00	0.05	0.10
A2	0.80 REF.		
b	0.15	0.20	0.30
c	0.10	0.15	0.25
D	1.55	1.60	1.65
E	1.50	1.60	1.70
E1	0.70	0.80	0.90
e	1.00 BSC		
L	0.10	0.15	0.20

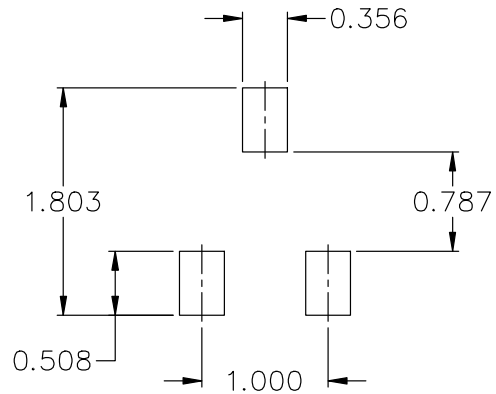
**GENERIC MARKING DIAGRAM\***



- XX = Specific Device Code
- M = Date Code
- = Pb-Free Package

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

- STYLE 1:  
PIN 1. BASE  
2. EMITTER  
3. COLLECTOR
- STYLE 2:  
PIN 1. ANODE  
2. N/C  
3. CATHODE
- STYLE 3:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE
- STYLE 4:  
PIN 1. CATHODE  
2. CATHODE  
3. ANODE
- STYLE 5:  
PIN 1. GATE  
2. SOURCE  
3. DRAIN



RECOMMENDED MOUNTING FOOTPRINT\*

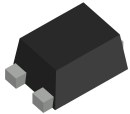
\* FOR ADDITIONAL INFORMATION ON OUR Pb-FREE STRATEGY AND SOLDERING DETAILS, PLEASE DOWNLOAD THE ON SEMICONDUCTOR SOLDERING AND MOUNTING TECHNIQUES REFERENCE MANUAL, SOLDERRM/D.

<b>DOCUMENT NUMBER:</b>	<b>98ASB15184C</b>	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
<b>DESCRIPTION:</b>	<b>SC75-3 1.60x0.80x0.80, 1.00P</b>	<b>PAGE 1 OF 1</b>

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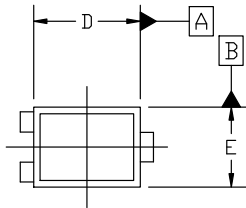


**MECHANICAL CASE OUTLINE  
PACKAGE DIMENSIONS**

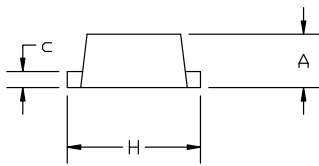


**SOT-1123 0.80x0.60x0.37, 0.35P**  
CASE 524AA  
ISSUE D

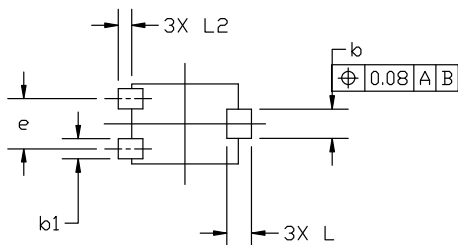
DATE 18 JAN 2024



TOP VIEW

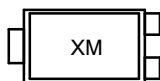


SIDE VIEW



BOTTOM VIEW

**GENERIC MARKING DIAGRAM\***



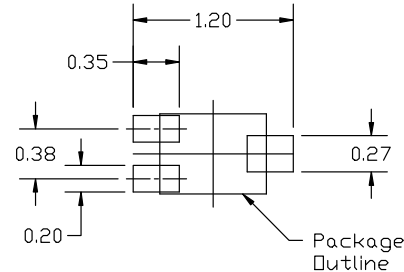
X = Specific Device Code  
M = Date Code

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

MILLIMETERS			
DIM	MIN	NOM	MAX
A	0.34	0.37	0.40
b	0.15	0.22	0.28
b1	0.10	0.15	0.20
c	0.07	0.12	0.17
D	0.75	0.80	0.85
E	0.55	0.60	0.65
e	0.35	0.38	0.40
H	0.950	1.000	1.050
L	0.185 REF		
L2	0.05	0.10	0.15



**RECOMMENDED MOUNTING FOOTPRINT**

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference manual, SOLDERM/D.

STYLE 1: PIN 1. BASE 2. EMITTER 3. COLLECTOR	STYLE 2: PIN 1. ANODE 2. N/C 3. CATHODE	STYLE 3: PIN 1. ANODE 2. ANODE 3. CATHODE	STYLE 4: PIN 1. CATHODE 2. CATHODE 3. ANODE	STYLE 5: PIN 1. GATE 2. SOURCE 3. DRAIN
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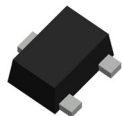
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<b>DESCRIPTION:</b>	<b>SOT-1123 0.80x0.60x0.37, 0.35P</b>	<b>PAGE 1 OF 1</b>

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**MECHANICAL CASE OUTLINE  
PACKAGE DIMENSIONS**



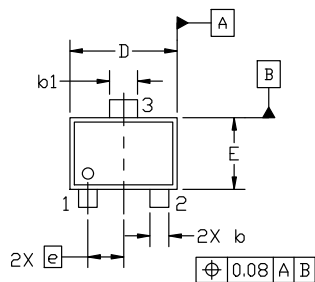
**SOT-723 1.20x0.80x0.50, 0.40P  
CASE 631AA  
ISSUE E**

DATE 24 JAN 2024

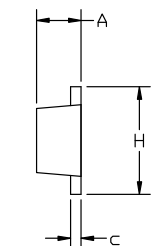
NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

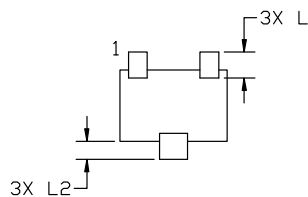
DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.45	0.50	0.55
b	0.15	0.21	0.27
b1	0.25	0.31	0.37
c	0.07	0.12	0.17
D	1.15	1.20	1.25
E	0.75	0.80	0.85
e	0.40 BSC		
H	1.15	1.20	1.25
L	0.29 REF		
L2	0.15	0.20	0.25



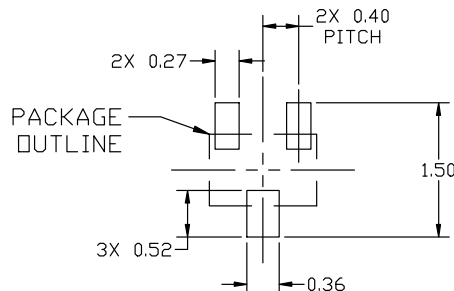
TOP VIEW



SIDE VIEW

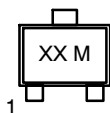


BOTTOM VIEW



RECOMMENDED MOUNTING FOOTPRINT

**GENERIC MARKING DIAGRAM\***



XX = Specific Device Code  
M = Date Code

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

\*For additional information on our Pb-Free strategy and soldering details, please download the DN Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

STYLE 1: PIN 1. BASE 2. EMITTER 3. COLLECTOR	STYLE 2: PIN 1. ANODE 2. N/C 3. CATHODE	STYLE 3: PIN 1. ANODE 2. ANODE 3. CATHODE	STYLE 4: PIN 1. CATHODE 2. CATHODE 3. ANODE	STYLE 5: PIN 1. GATE 2. SOURCE 3. DRAIN
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