

MUN5235T1G Datasheet





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DiGi Electronics Part Number MUN5235T1G-DG

Manufacturer onsemi

Manufacturer Product Number MUN5235T1G

Description TRANS PREBIAS NPN 50V SC70-3

Detailed Description Pre-Biased Bipolar Transistor (BJT) NPN - Pre-Biase d 50 V 100 mA 202 mW Surface Mount SC-70-3 (SO

T323)



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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.



Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
MUN5235T1G	onsemi
Series:	Product Status:
	Active
Transistor Type:	Current - Collector (Ic) (Max):
NPN - Pre-Biased	100 mA
Voltage - Collector Emitter Breakdown (Max):	Resistor - Base (R1):
50 V	2.2 kOhms
Resistor - Emitter Base (R2):	DC Current Gain (hFE) (Min) @ Ic, Vce:
47 kOhms	80 @ 5mA, 10V
Vce Saturation (Max) @ lb, lc:	Current - Collector Cutoff (Max):
250mV @ 1mA, 10mA	500nA
Power - Max:	Mounting Type:
202 mW	Surface Mount
Package / Case:	Supplier Device Package:
SC-70, SOT-323	SC-70-3 (SOT323)
Base Product Number:	
MUN5235	

Environmental & Export classification

8541.21.0095

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	



Digital Transistors (BRT) R1 = 2.2 k Ω , R2 = 47 k Ω

NPN Transistors with Monolithic Bias Resistor Network

MUN2235, MMUN2235L, MUN5235, DTC123JE, DTC123JM3, NSBC123JF3

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

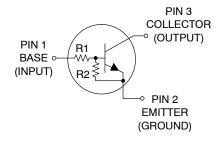
- Simplifies Circuit Design
- Reduces Board Space
- Reduces Component Count
- S and NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable
- These Devices are Pb–Free, Halogen Free/BFR Free and are RoHS Compliant

MAXIMUM RATINGS (T_A = 25°C)

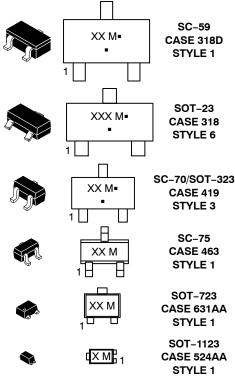
Rating	Symbol	Max	Unit
Collector-Base Voltage	V_{CBO}	50	Vdc
Collector-Emitter Voltage	V_{CEO}	50	Vdc
Collector Current - Continuous	I _C	100	mAdc
Input Forward Voltage	V _{IN(fwd)}	12	Vdc
Input Reverse Voltage	V _{IN(rev)}	6	Vdc

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



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

(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.

Table 1. ORDERING INFORMATION

Device	Part Marking	Package	Shipping [†]
MUN2235T1G	6M	SC-59 (Pb-Free)	3000 / Tape & Reel
MMUN2235LT1G, NSVMMUN2235LT1G*	AA2	SOT-23 (Pb-Free)	3000 / Tape & Reel
MUN5235T1G, SMUN5235T1G*	8M	SC-70/SOT-323 (Pb-Free)	3000 / Tape & Reel
DTC123JET1G, NSVDTC123JET1G*	8M	SC-75 (Pb-Free)	3000 / Tape & Reel
DTC123JM3T5G, NSVDTC123JM3T5G*	8M	SOT-723 (Pb-Free)	8000 / Tape & Reel

DISCONTINUED (Note 1)

NSBC123JF3T5G	V	SOT-1123 (Pb-Free)	8000 / Tape & Reel
		(i b-i iee)	

[†]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.

^{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.

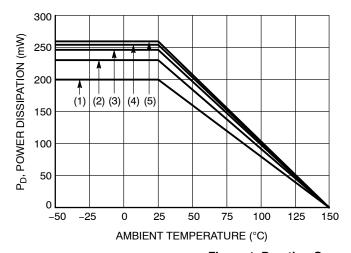


Figure 1. Derating Curve

- (1) SC-75 and SC-70/SOT323; Minimum Pad
- (2) SC-59; Minimum Pad
- (3) SOT-23; Minimum Pad
- (4) SOT-1123; 100 mm², 1 oz. copper trace
- (5) SOT-723; Minimum Pad

^{*}S and NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

Table 2. THERMAL CHARACTERISTICS

	Characteristic	Symbol	Max	Unit
THERMAL CHARACTER	ISTICS (SC-59) (MUN2235)			
Total Device Dissipation		P _D		
T _A = 25°C	(Note 2)		230	mW
	(Note 3)		338	
Derate above 25°C	(Note 2)		1.8	mW/°C
	(Note 3)		2.7	
Thermal Resistance,	(Note 2)	$R_{ hetaJA}$	540	°C/W
Junction to Ambient	(Note 3)		370	
Thermal Resistance,	(Note 2)	$R_{ hetaJL}$	264	°C/W
Junction to Lead	(Note 3)	352	287	
Junction and Storage Tem	iperature Range	T _J , T _{stg}	-55 to +150	°C
THERMAL CHARACTER	ISTICS (SOT-23) (MMUN2235L)			
Total Device Dissipation		P _D		
T _A = 25°C	(Note 2)	'5	246	mW
,,	(Note 3)	1	400	
Derate above 25°C	(Note 2)		2.0	mW/°C
	(Note 3)		3.2	
Thermal Resistance,	(Note 1)	$R_{ hetaJA}$	508	°C/W
Junction to Ambient	(Note 3)		311	
Thermal Resistance,	(Note 2)	$R_{ hetaJL}$	174	°C/W
Junction to Lead	(Note 3)		208	,
Junction and Storage Tem	perature Range	T _J , T _{stg}	-55 to +150	°C
THERMAL CHARACTER	ISTICS (SC-70/SOT-323) (MUN5235)			
Total Device Dissipation		P _D		
T _A = 25°C	(Note 2)	5	202	mW
• •	(Note 3)		310	
Derate above 25°C	(Note 2)		1.6	mW/°C
	(Note 3)		2.5	
Thermal Resistance,	(Note 2)	$R_{ hetaJA}$	618	°C/W
Junction to Ambient	(Note 3)		403	
Thermal Resistance,	(Note 2)	$R_{ hetaJL}$	280	°C/W
Junction to Lead	(Note 3)	JOE 1	332	,
Junction and Storage Tem	perature Range	T_J,T_stg	-55 to +150	°C
	nperature Range ISTICS (SC-75) (DTC123JE)	T_J,T_stg	-55 to +150	°C
THERMAL CHARACTER Total Device Dissipation	ISTICS (SC-75) (DTC123JE)			
THERMAL CHARACTER	·	T _J , T _{stg}	-55 to +150	°C mW
THERMAL CHARACTER Total Device Dissipation T _A = 25°C	(Note 2) (Note 3)		200 300	mW
THERMAL CHARACTER Total Device Dissipation	(Note 2) (Note 3) (Note 2)		200 300 1.6	
THERMAL CHARACTER Total Device Dissipation T _A = 25°C	(Note 2) (Note 3)		200 300	mW
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25 $^{\circ}C$ Thermal Resistance,	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3)		200 300 1.6 2.4	mW
THERMAL CHARACTER Total Device Dissipation T _A = 25°C Derate above 25°C	(Note 2) (Note 3) (Note 2) (Note 3)	P _D	200 300 1.6 2.4	mW mW/°C
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3)	P _D	200 300 1.6 2.4	mW mW/°C
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3)	P _D	200 300 1.6 2.4 600 400	mW mW/°C °C/W
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER Total Device Dissipation	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 3) (Poperature Range ISTICS (SOT-723) (DTC123JM3)	P _D	200 300 1.6 2.4 600 400	mW mW/°C °C/W
THERMAL CHARACTER Total Device Dissipation T _A = 25°C Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 3) (Note 3)	P _D R ₀ JA T _J , T _{stg}	200 300 1.6 2.4 600 400	mW mW/°C °C/W
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) Inperature Range ISTICS (SOT-723) (DTC123JM3)	P _D R ₀ JA T _J , T _{stg}	200 300 1.6 2.4 600 400 -55 to +150	mW mW/°C °C/W °C
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER Total Device Dissipation	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 3) (Note 2) (Note 3) (Note 3) (Note 3) (Note 3) (Note 2) (Note 3) (Note 2) (Note 2) (Note 3)	P _D R ₀ JA T _J , T _{stg}	200 300 1.6 2.4 600 400 -55 to +150	mW mW/°C °C/W
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) Inperature Range ISTICS (SOT-723) (DTC123JM3)	P _D R ₀ JA T _J , T _{stg}	200 300 1.6 2.4 600 400 -55 to +150	mW mW/°C °C/W °C
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Terr THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 3) (Note 2) (Note 3) (Note 3) (Note 3) (Note 3) (Note 2) (Note 3) (Note 2) (Note 2) (Note 3)	P _D R _θ JA T _J , T _{stg}	200 300 1.6 2.4 600 400 -55 to +150	mW mW/°C °C/W °C
THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C Thermal Resistance, Junction to Ambient Junction and Storage Tem THERMAL CHARACTER Total Device Dissipation $T_A = 25^{\circ}C$	(Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3) (Note 2) (Note 3)	P _D R ₀ JA T _J , T _{stg}	200 300 1.6 2.4 600 400 -55 to +150 260 600 2.0 4.8	mW mW/°C °C/W °C mW mW/°C

Table 2. THERMAL CHARACTERISTICS

	Characteristic	Symbol	Max	Unit
THERMAL CHARACTERI	STICS (SOT-1123) (NSBC123JF3)			
Total Device Dissipation $T_A = 25^{\circ}C$ Derate above 25°C	(Note 4) (Note 5) (Note 4) (Note 5)	P _D	254 297 2.0 2.4	mW mW/°C
Thermal Resistance, Junction to Ambient	(Note 4) (Note 5)	$R_{ hetaJA}$	493 421	°C/W
Thermal Resistance, Junction to Lead	(Note 4)	$R_{ hetaJL}$	193	°C/W
Junction and Storage Tem	perature Range	T _J , T _{stg}	-55 to +150	°C

^{2.} FR-4 @ Minimum Pad.

Table 3. ELECTRICAL CHARACTERISTICS ($T_A = 25$ °C, unless otherwise noted)

Characteristic	Symbol	Min	Тур	Max	Unit
OFF CHARACTERISTICS					
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}	-	-	0.2	mAdc
Collector-Base Breakdown Voltage $(I_C = 10 \mu A, I_E = 0)$	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
ON CHARACTERISTICS	•	•			ı
DC Current Gain (Note 5) (I _C = 5.0 mA, V _{CE} = 10 V)	h _{FE}	80	140	-	
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) $(V_{CE} = 0.3 \text{ V}, I_C = 5.0 \text{ mA})$	V _{i(on)}	1.1	0.8	-	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 = 0.5 \text{ V}, R_L = 1.0 \text{ k}\Omega) $	V _{OH}	4.9	-	-	Vdc
Input Resistor	R1	1.5	2.2	2.9	kΩ
Resistor Ratio	R ₁ /R ₂	0.038	0.047	0.056	

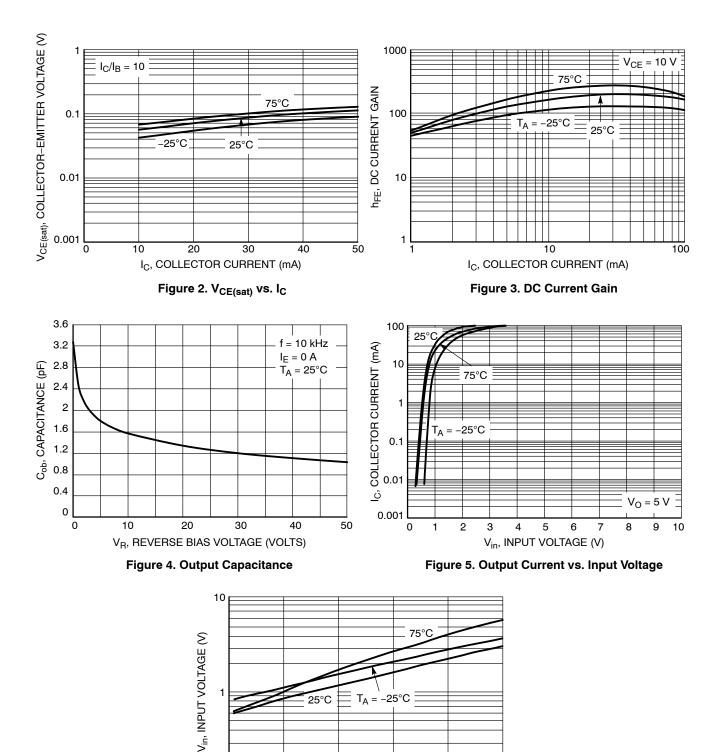
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

6. Pulsed Condition: Pulse Width = 300 msec, Duty Cycle ≤ 2%.

^{3.} FR-4 @ 1.0 x 1.0 Inch Pad.

^{4.} FR-4 @ 100 mm², 1 oz. copper traces, still air.
5. FR-4 @ 500 mm², 1 oz. copper traces, still air.

TYPICAL CHARACTERISTICS MUN2235, MMUN2235L, MUN5235, DTC123JE, DTC123JM3



 $V_0 = 0.2 V$ 0.1 50

 $T_A = -25^{\circ}C$

I_C, COLLECTOR CURRENT (mA) Figure 6. Input Voltage vs. Output Current

TYPICAL CHARACTERISTICS NSBC123JF3

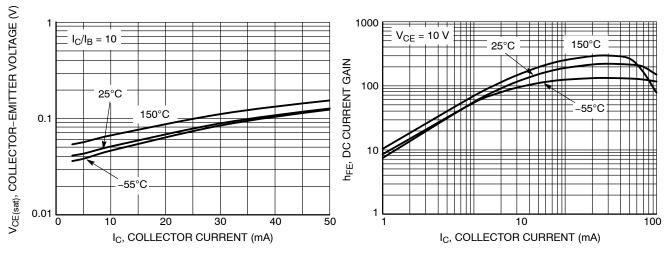


Figure 7. V_{CE(sat)} vs. I_C

Figure 8. DC Current Gain

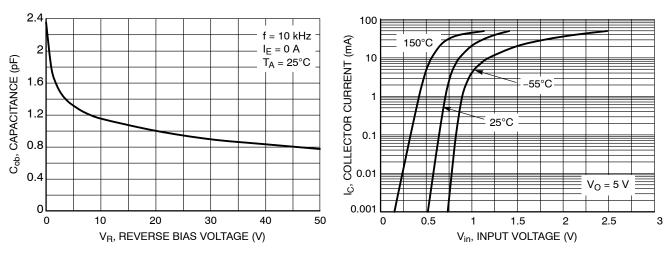


Figure 9. Output Capacitance

Figure 10. Output Current vs. Input Voltage

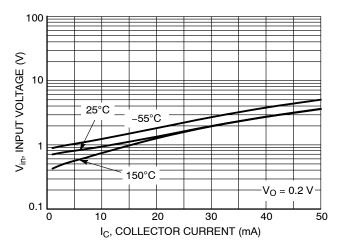


Figure 11. Input Voltage vs. Output Current

PACKAGE DIMENSIONS



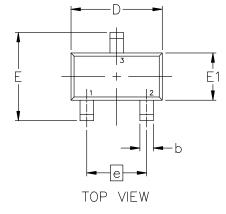
SC-59-3 2.90x1.50x1.15, 1.90P CASE 318D ISSUE J

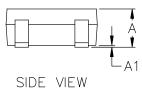
DATE 15 FEB 2024

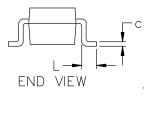
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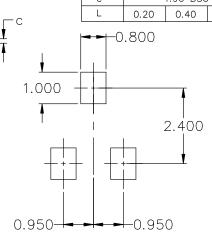
- DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5-2018.
- 2. ALL DIMENSION ARE IN MILLIMETERS.

	MILLIMETERS			
DIM	MIN.	NOM.	MAX.	
Α	1.00	1.15	1.30	
A1	0.01	0.06	0.10	
Ф	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	
е	1.90 BSC			
L	0.20	0.40	0.60	









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.



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:
 STYLE 2:
 STYLE 3:

 PIN 1. BASE
 PIN 1. ANODE
 PIN 1. ANODE

 2. EMITTER
 2. N.C.
 2. ANODE

 3. COLLECTOR
 3. CATHODE
 3. CATHODE

 STYLE 4:
 STYLE 5:
 STYLE 6:

 PIN 1. CATHODE
 PIN 1. CATHODE
 PIN 1. ANODE

 2. N.C.
 2. CATHODE
 2. CATHODE

 3. ANODE
 3. ANODE
 3. ANODE/CATHODE



MILLIMETERS

MIN

0.89

0.01

0.37

0.08

2.80

1.20

1.78

0.30

0.35

2.10

O°

NOM

1.00

0.06

0.44

0.14

2.90

1.30

1.90

0.43

0.54

2.40

PACKAGE DIMENSIONS



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

DATE 14 AUG 2024

MAX

1.11

0.10

0.50

0.20

3.04

1.40

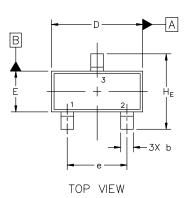
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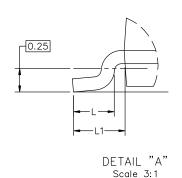
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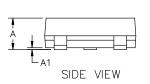
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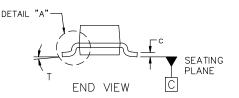
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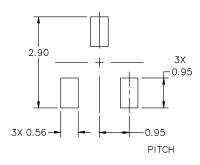
10°











NOTES:

DIM

Α

Α1

b

С

D

Ε

е L

L1

HE

Τ

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

GENERIC MARKING DIAGRAM*



XXX = Specific Device Code

= Date Code

= Pb-Free Package

RECOMMENDED MOUNTING FOOTPRINT

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

STYLES ON PAGE 2

DOCUMENT NUMBE	R: 98ASB42226B	98ASB42226B Electronic versions are uncontrolled except when accessed directly from the Document Report Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.		
DESCRIPTIO	N: SOT-23 (TO-236) 2.90x1.3	30x1.00 1.90P	PAGE 1 OF 2	

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^{*}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.

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: STYLE 8: PIN 1. EMITTER PIN 1. ANOD 2. BASE 2. NO CC 3. COLLECTOR 3. CATHO	ONNECTION	
STYLE 9: PIN 1. ANODE 2. ANODE 3. CATHODE	STYLE 10: PIN 1. DRAIN 2. SOURCE 3. GATE	STYLE 11: STYLE 12: PIN 1. ANODE PIN 1. CATHO 2. CATHODE 2. CATHO 3. CATHODE-ANODE 3. ANODO	ODE 2. DRAIN 2. GATE	
STYLE 15: PIN 1. GATE 2. CATHODE 3. ANODE	STYLE 16: PIN 1. ANODE 2. CATHODE 3. CATHODE	STYLE 17: STYLE 18: PIN 1. NO CONNECTION PIN 1. NO CO 2. ANODE 2. CATHO 3. CATHODE 3. ANODO	ODE 2. ANODE 2. ANODE	
STYLE 21: PIN 1. GATE 2. SOURCE 3. DRAIN	STYLE 22: PIN 1. RETURN 2. OUTPUT 3. INPUT	STYLE 23: STYLE 24: PIN 1. ANODE PIN 1. GATE 2. ANODE 2. DRAIN 3. CATHODE 3. SOURCE		CTION
STYLE 27: PIN 1. CATHODE 2. CATHODE 3. CATHODE	STYLE 28: PIN 1. ANODE 2. ANODE 3. ANODE			

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DESCRIPTION:	SOT-23 (TO-236) 2.90x1.3	SOT-23 (TO-236) 2.90x1.30x1.00 1.90P			

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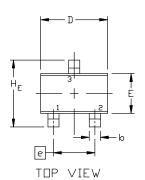
PACKAGE DIMENSIONS

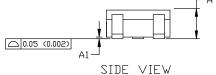


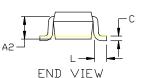
DATE 11 OCT 2022











NOTES:

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

	MILLIMETERS			INCHES		
DIM	MIN.	N□M.	MAX.	MIN.	N□M.	MAX.
Α	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
С	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
е	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
HE	2.00	2.10	2.40	0.079	0.083	0.095



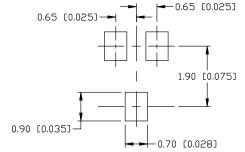


XX = Specific Device Code

= Date Code М

= 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 IIN Semiconductor Soldering and Mounting Techniques Reference Manual, SDLDERRM/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:	STYLE 7:	STYLE 8:	STYLE 9:	STYLE 10:	STYLE 11:
PIN 1. EMITTER	PIN 1. BASE	PIN 1. GATE	PIN 1. ANODE	PIN 1. CATHODE	PIN 1. CATHODE
2. BASE	2. EMITTER	2. SOURCE	2. CATHODE	2. ANODE	CATHODE
COLLECTOR	COLLECTOR	3. DRAIN	CATHODE-ANODE	3. ANODE-CATHODE	CATHODE

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DESCRIPTION:	SC-70 (SOT-323)		PAGE 1 OF 1

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PACKAGE DIMENSIONS

SC75-3 1.60x0.80x0.80, 1.00P

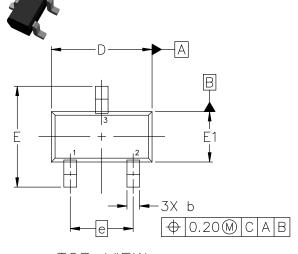
CASE 463 ISSUE H

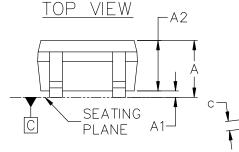
DATE 01 FEB 2024

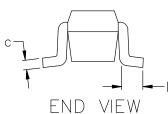
NOTES:

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

DIM	MILLIMETERS			
ואוט	MIN.	NOM.	MAX.	
А	0.70	0.80	0.90	
A1	0.00	0.05	0.10	
A2	(0.80 REF		
Ь	0.15	0.20	0.30	
С	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	
е	1.00 BSC			
L	0.10	0.15	0.20	

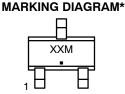






GENERIC

SIDE VIEW



XX = Specific Device Code

Μ = 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

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.

STYLE 4:
PIN 1. CATHODE
2. CATHODE
ANODE

STYLE 5: PIN 1. GATE 2. SOURCE 3. DRAIN

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PAGE 1 OF 1



ТПР

MECHANICAL CASE OUTLINE

PACKAGE DIMENSIONS

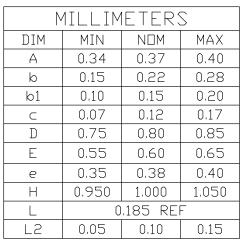


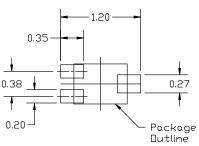
SOT-1123 0.80x0.60x0.37, 0.35P CASE 524AA ISSUE D

DATE 18 JAN 2024

NOTES:

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



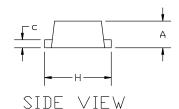


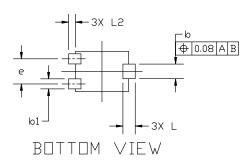
RECOMMENDED MOUNTING FOOTPRINT

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

В

VIEW





GENERIC MARKING DIAGRAM*



= Specific Device Code

= 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.

STYLE 1:
PIN 1. BASE
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

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DESCRIPTION:	SOT-1123 0.80x0.60x0.37, 0.35P		PAGE 1 OF 1

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PACKAGE DIMENSIONS

MILLIMETERS

 $N\square M$.

0.50

0.21

0.31

0.12

1.20

0.80

0.40 BSC

1.20

0.29 REF

0.20



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

DATE 24 JAN 2024

MAX.

0.55

0.27

0.37

0.17

1.25

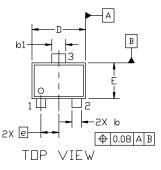
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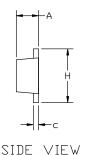
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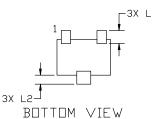
0.25

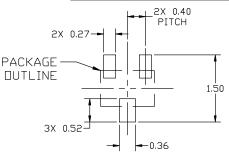
NOTES:

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









DIM

Α

b

b1

 \subset D

Ε

е Н

L L2 MIN.

0.45

0.15

0.25

0.07

1.15

0.75

1.15

0.15

RECOMMENDED MOUNTING FOOTPRINT

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

GENERIC MARKING DIAGRAM*



XX = Specific Device Code = 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.

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

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