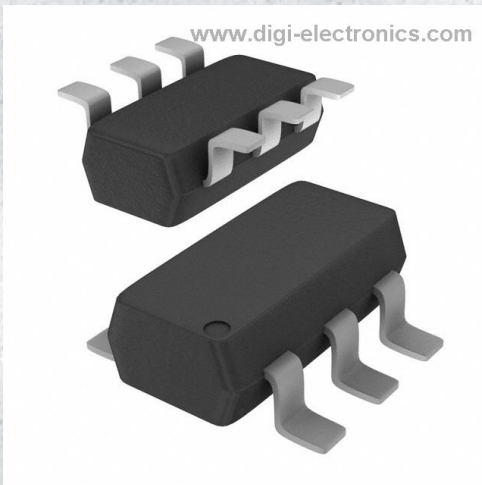


BAS21UE6327HTSA1 Datasheet



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

DiGi Electronics Part Number	BAS21UE6327HTSA1-DG
Manufacturer	Infineon Technologies
Manufacturer Product Number	BAS21UE6327HTSA1
Description	DIODE ARRAY GP 200V 250MA SC74-6
Detailed Description	Diode Array 3 Independent 200 V 250mA (DC) Surface Mount SC-74, SOT-457

This model BAS21UE6327HTSA1 is available at DiGi Electronics.

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Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

BAS21UE6327HTSA1

Series:

-

Diode Configuration:

3 Independent

Voltage - DC Reverse (Vr) (Max):

200 V

Voltage - Forward (Vf) (Max) @ If:

1.25 V @ 200 mA

Reverse Recovery Time (trr):

50 ns

Operating Temperature - Junction:

150°C (Max)

Package / Case:

SC-74, SOT-457

Base Product Number:

BAS21

Manufacturer:

Infineon Technologies

Product Status:

Last Time Buy

Technology:

Standard

Current - Average Rectified (Io) (per Diode):

250mA (DC)

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

100 nA @ 200 V

Mounting Type:

Surface Mount

Supplier Device Package:

PG-SC74-6

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

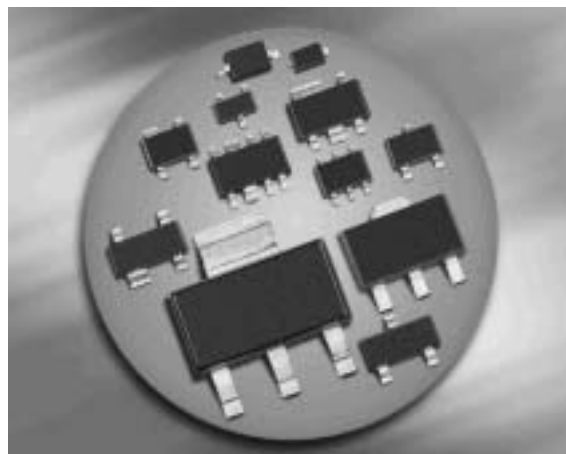
1 (Unlimited)

ECCN:

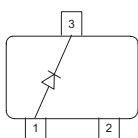
EAR99

Silicon Switching Diode

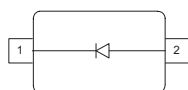
- For high-speed switching applications
- High breakdown voltage
- Pb-free (RoHS compliant) package ¹⁾
- Qualified according AEC Q101



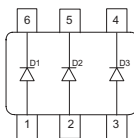
BAS21



BAS21-03W



BAS21U



Type	Package	Configuration	Marking
BAS21	SOT23	single	JSs
BAS21-03W	SOD323	single	D
BAS21U	SC74	parallel triple	JSs

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	200	V
Peak reverse voltage	V_{RM}	250	
Forward current	I_F	250	mA
Peak forward current	I_{FM}	625	
Peak forward current	I_{FM}	625	mA
Surge forward current, $t = 10 \mu\text{s}$	I_{FS}	4	A
Non-repetitive peak surge forward current	I_{FSM}	-	
Total power dissipation	P_{tot}		mW
BAS21, $T_S \leq 70^\circ\text{C}$		350	
BAS21-03W, $T_S \leq 124^\circ\text{C}$		250	
BAS21U, $T_S \leq 122^\circ\text{C}$		250	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 ... 150	

¹Pb-containing package may be available upon special request

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}		K/W
BAS21		≤ 230	
BAS21-03W		≤ 105	
BAS21U		≤ 110	

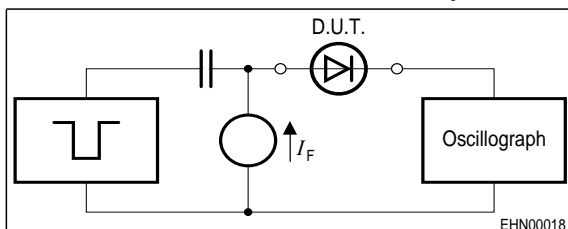
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_{(BR)} = 100 \mu\text{A}$	$V_{(BR)}$	250	-	-	V
Reverse current $V_R = 200 \text{ V}$ $V_R = 200 \text{ V}, T_A = 150^\circ\text{C}$	I_R	-	-	0.1 100	μA
Forward voltage $I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$	V_F	-	-	1 1.25	V

AC Characteristics

Diode capacitance $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_T	-	-	5	pF
Reverse recovery time $I_F = 30 \text{ mA}, I_R = 30 \text{ mA}$, measured at $I_R = 3 \text{ mA}$, $R_L = 100 \Omega$	t_{rr}	-	-	50	ns

Test circuit for reverse recovery time



Puls generator: $t_p = 1 \mu\text{s}$, $D = 0.05$
 $t_r = 0.6 \text{ ns}$, $R_i = 50 \Omega$

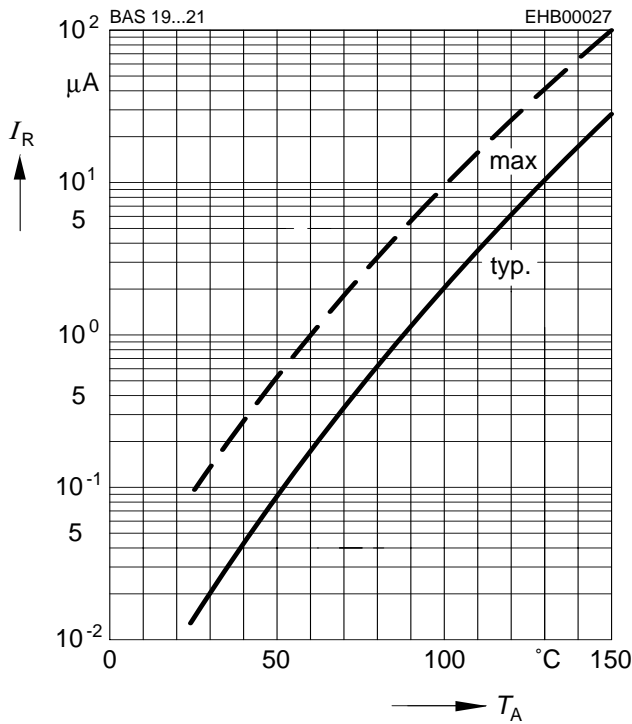
Oscilloscope: $R = 50 \Omega$, $t_r = 0.35 \text{ ns}$, $C \leq 1 \text{ pF}$

¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance



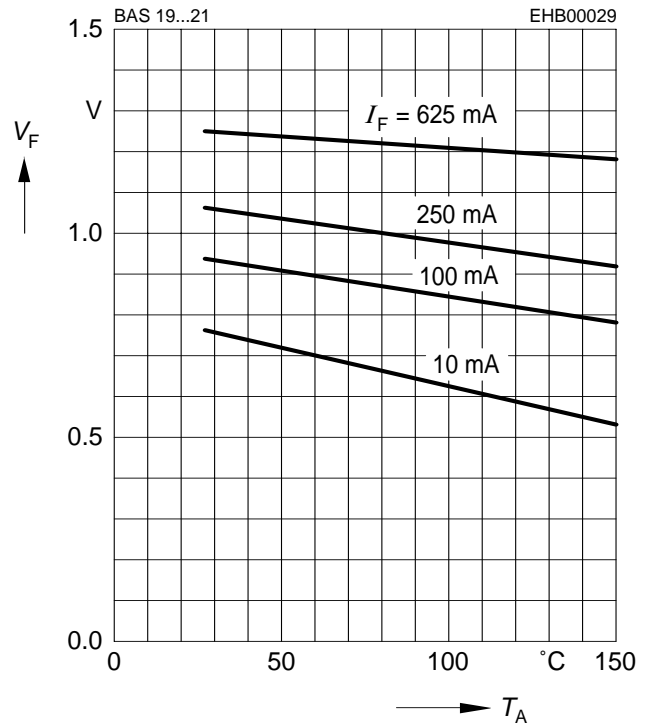
Reverse current $I_R = f(T_A)$

$V_R = 200V$

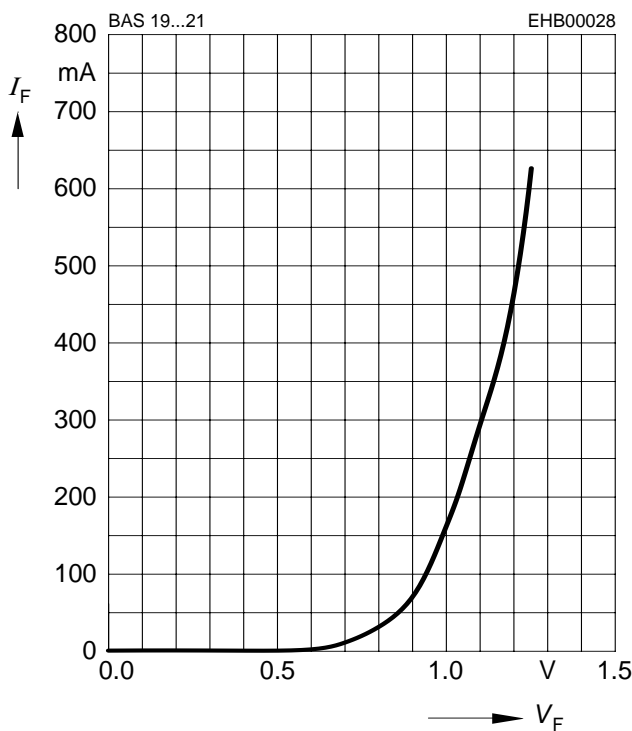


Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$

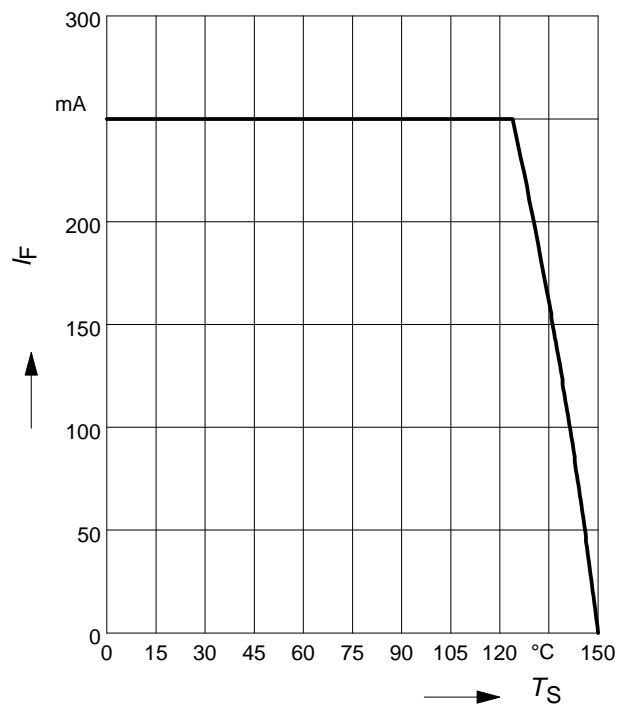


Forward current $I_F = f(V_F)$



Forward current $I_F = f(T_S)$

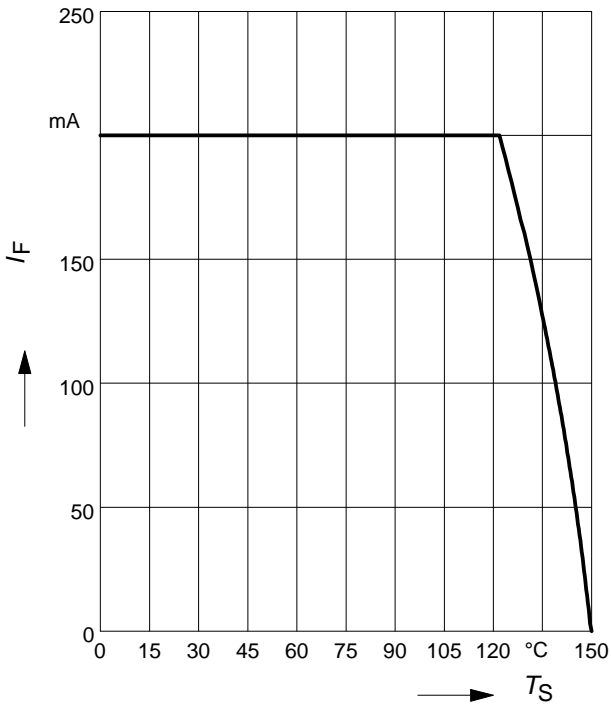
BAS21-03W





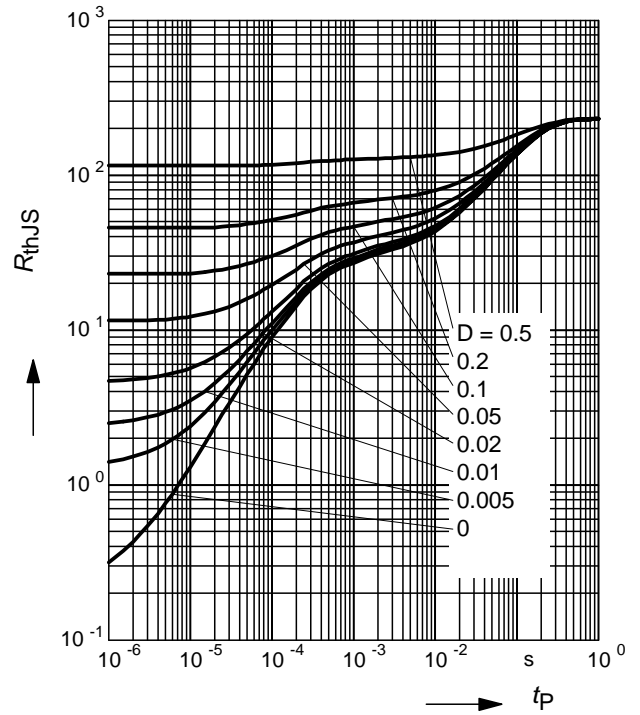
Forward current $I_F = f(T_S)$

BAS21U



Permissible Puls Load $R_{thJS} = f(t_p)$

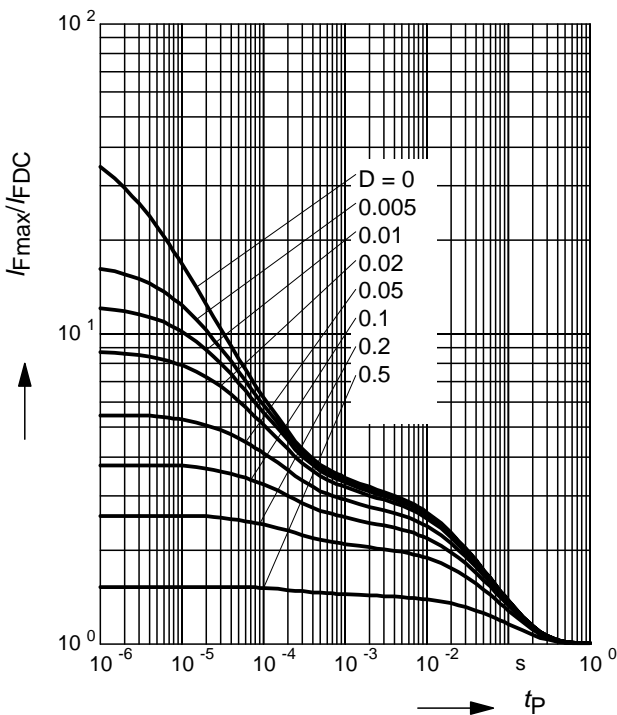
BAS21



Permissible Pulse Load

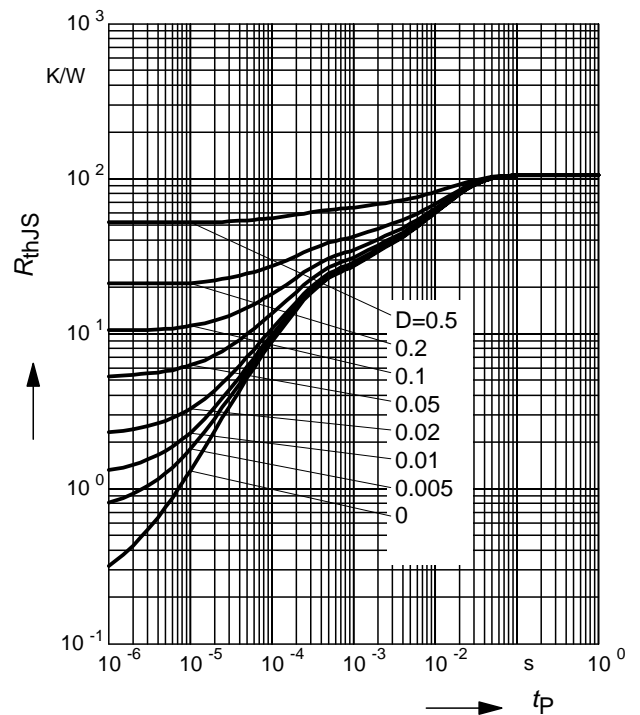
$I_{Fmax} / I_{FDC} = f(t_p)$

BAS21



Permissible Puls Load $R_{thJS} = f(t_p)$

BAS21-03W

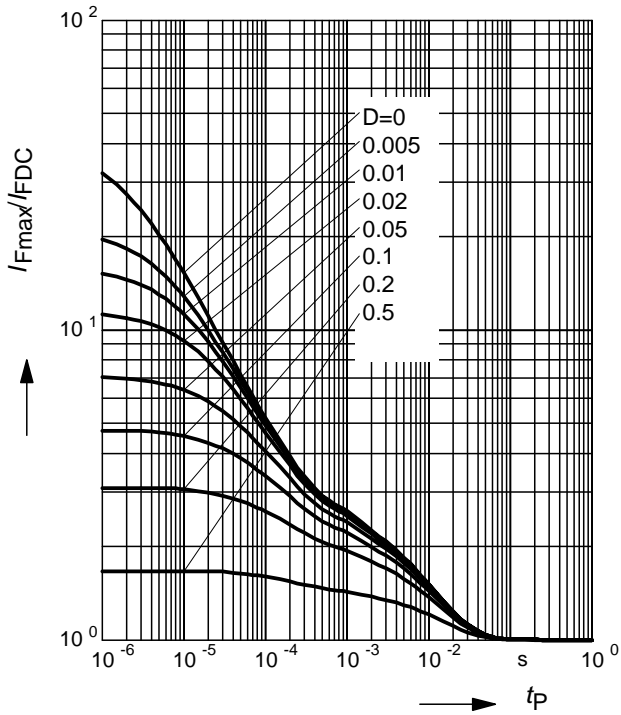




Permissible Pulse Load

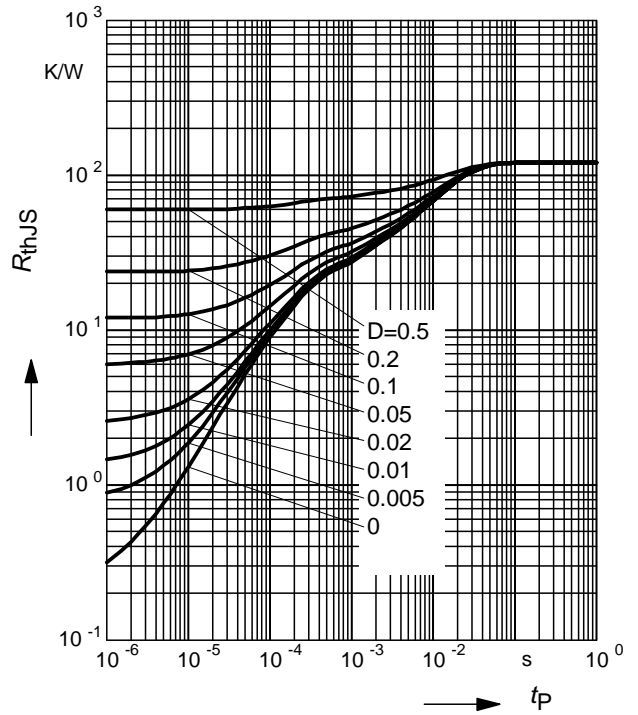
$I_{Fmax} / I_{FDC} = f(t_p)$

BAS21-03W



Permissible Puls Load $R_{thJS} = f(t_p)$

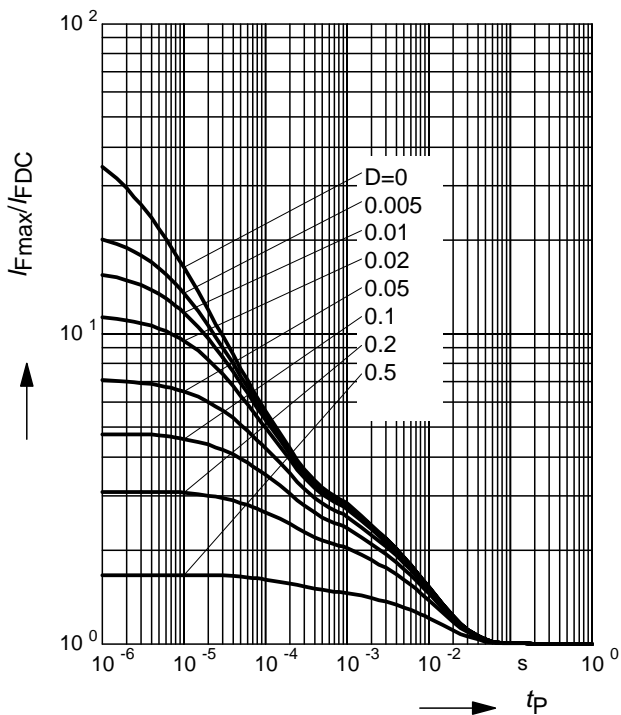
BAS21U



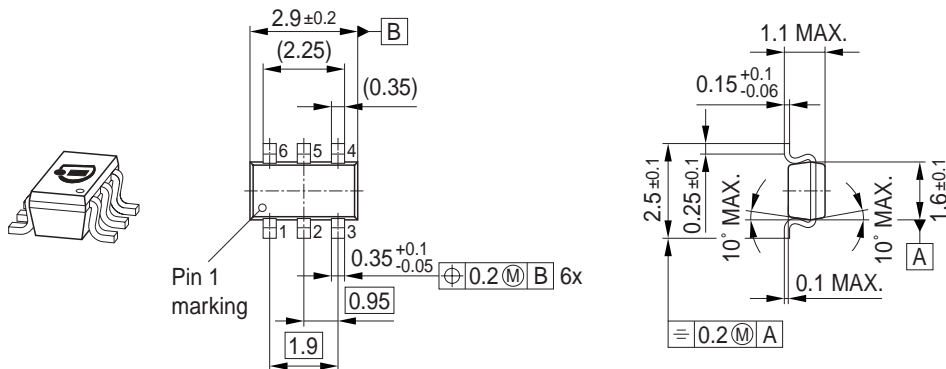
Permissible Pulse Load

$I_{Fmax} / I_{FDC} = f(t_p)$

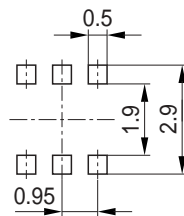
BAS21U



Package Outline

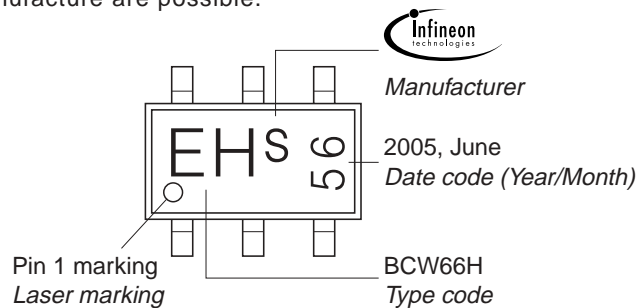


Foot Print



Marking Layout (Example)

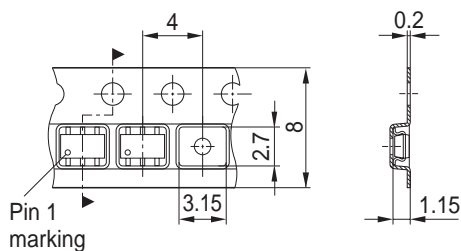
Small variations in positioning of Date code, Type code and Manufacture are possible.



Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
 Reel ø330 mm = 10.000 Pieces/Reel

For symmetric types no defined Pin 1 orientation in reel.

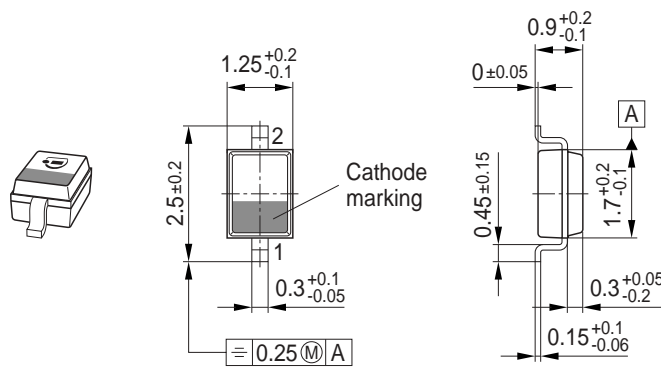




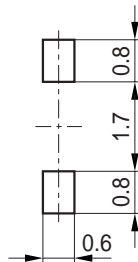
Package SOD323

BAS21...

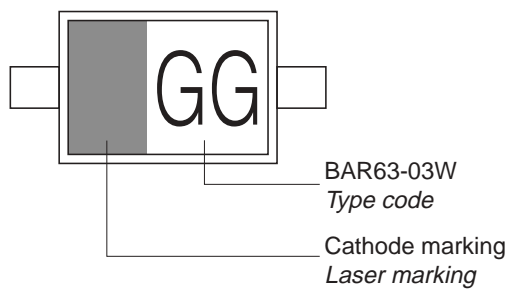
Package Outline



Foot Print

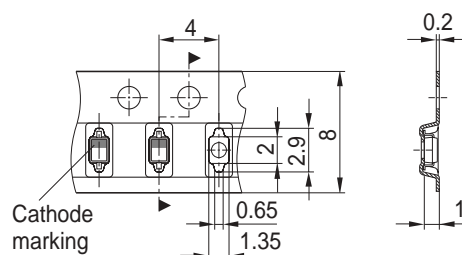


Marking Layout (Example)



Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
 Reel ø330 mm = 10.000 Pieces/Reel

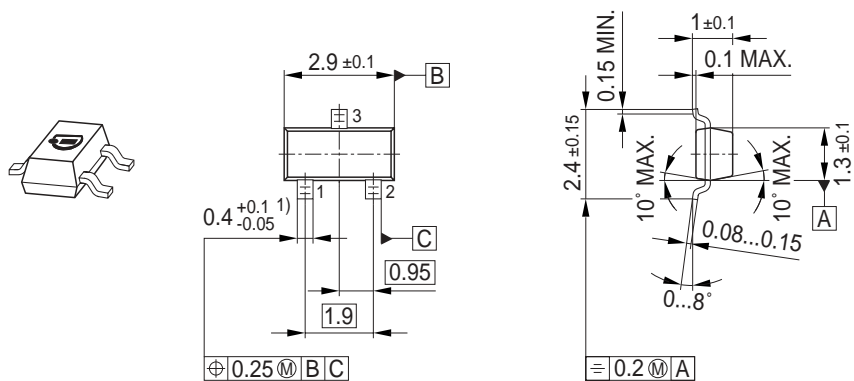




Package SOT23

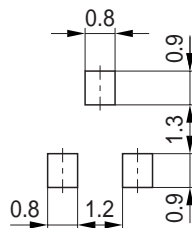
BAS21...

Package Outline

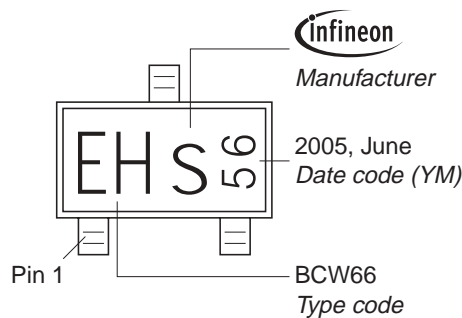


1) Lead width can be 0.6 max. in dambar area

Foot Print

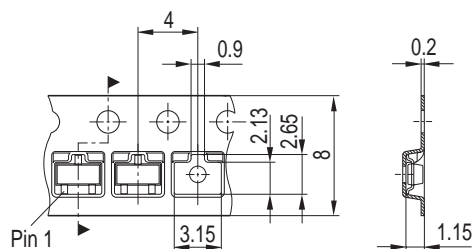


Marking Layout (Example)



Standard Packing

Reel $\varnothing 180$ mm = 3.000 Pieces/Reel
 Reel $\varnothing 330$ mm = 10.000 Pieces/Reel





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