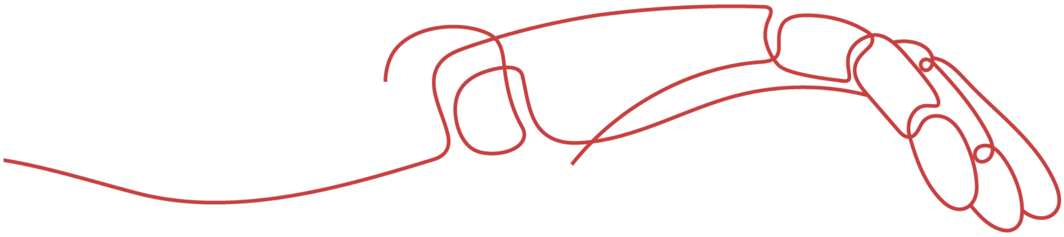
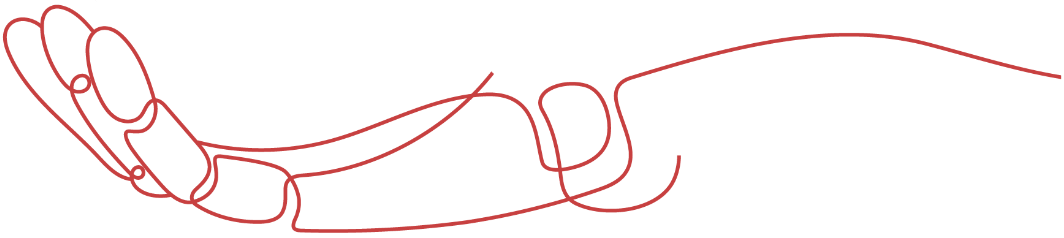
JG® Techology



PRODUCT DATA SHEET



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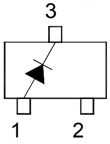
Datasheet Resources Samples

BAR43

SCHOTTKY BARRIER DIODE

BAR43



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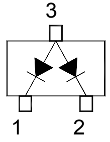

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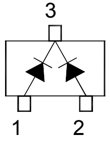

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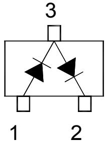
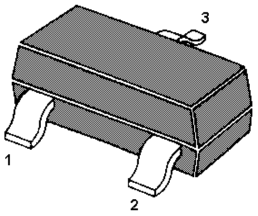




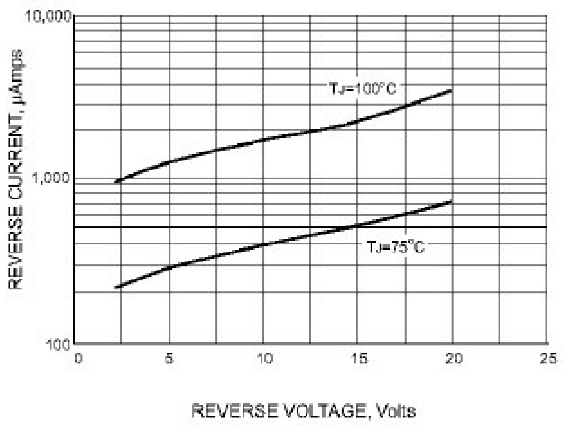
SOT-23

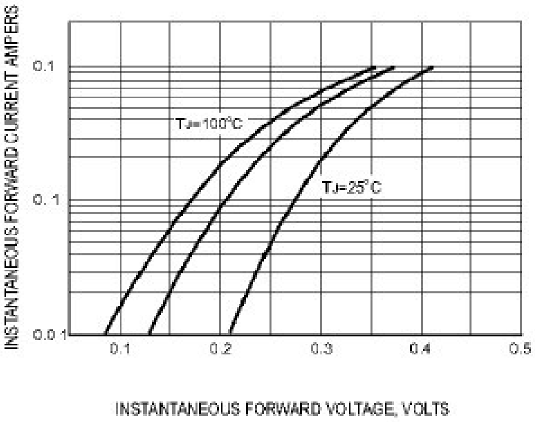
Absolute Maximum Ratings (T_a = 25 °C)

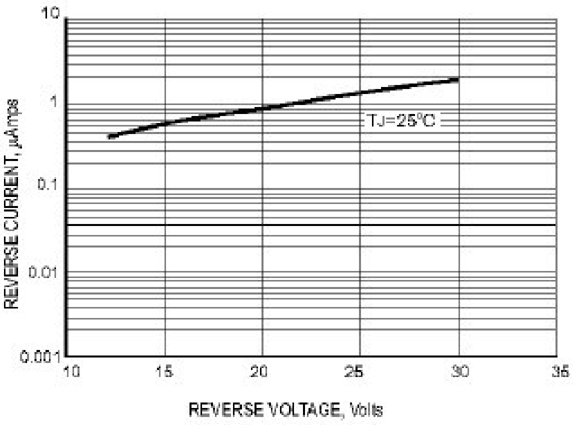
Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current at (t = 1 s)	I_{FSM}	750	mA
Power Dissipation	P_{tot}	290	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	430	°C/W
Operating Junction Temperature	T_J	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

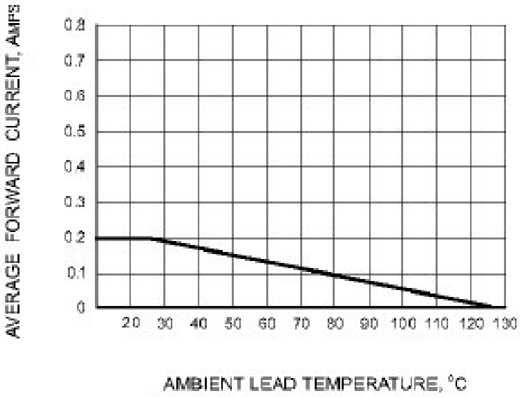
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	30	-	V
Reverse Current at V_R = 25 V	I_R	-	500	nA
Forward Voltage at I_F = 2 mA at I_F = 15 mA at I_F = 100 mA	V_F	0.26 - -	0.33 0.45 0.8	V
Reverse Recovery Time at I_F = I_R = 10 mA, I_{RR} = 1 mA, R_L = 100 Ω	t_{rr}	-	5	ns


10,000
1,000
100
REVERSE CURRENT, μAmps
TJ=100°C
TJ=75°C
0
5
10
15
20
25
REVERSE VOLTAGE, Volts

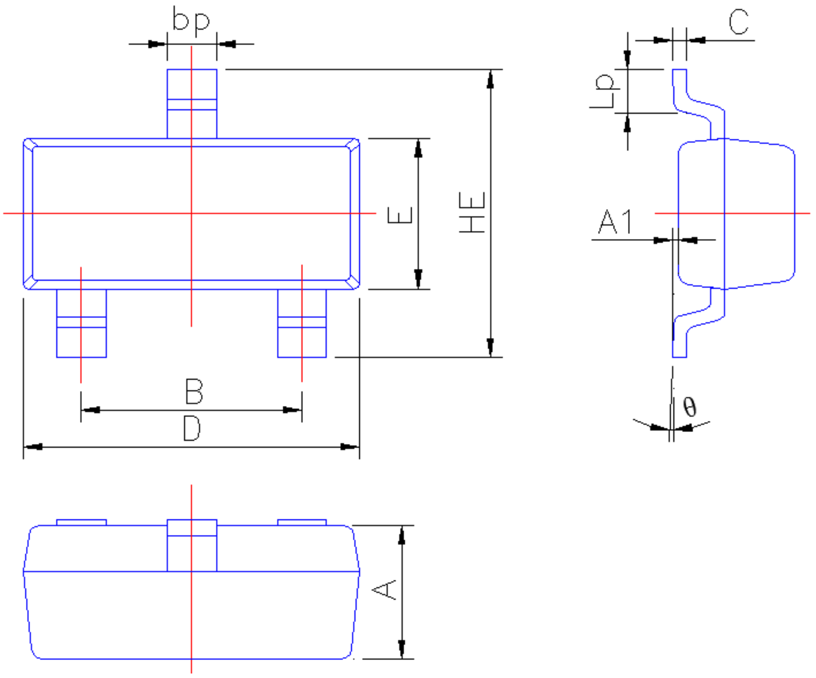

INSTANTANEOUS FORWARD CURRENT AMPERS
0.1
0. 1
0.0 1
TJ=100°C
TJ=25°C
0.1
0.2
0.3
0.4
0.5
INSTANTANEOUS FORWARD VOLTAGE, VOLTS


10
1
0.1
0.01
0.001
REVERSE CURRENT, μAmps
TJ=25°C
10
15
20
25
30
35
REVERSE VOLTAGE, Volts


AVERAGE FORWARD CURRENT, AMPS
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
20
30
40
50
60
70
80
90
100
110
120
130
AMBIENT LEAD TEMPERATURE, °C

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.10
A1	0.013	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.09	0.150
D	2.80	3.00
E	1.20	1.40
HE	2.20	2.80
Lp	0.20	0.50
θ	0º	5º

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