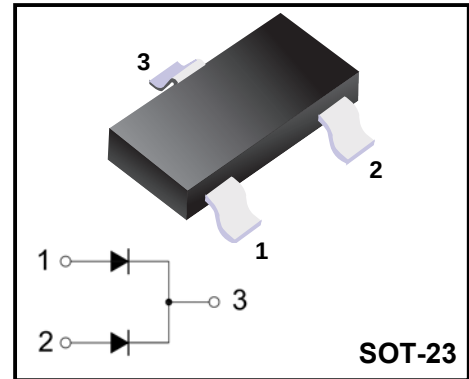


Plastic-Encapsulate Diodes

Pin Diode

FEATURES

- ◆ High voltage, current controlled
- ◆ RF resistor for RF attenuators and switches
- ◆ Low diode capacitance
- ◆ Low diode forward resistance
- ◆ Low series inductance
- ◆ For applications up to 3 GHz.



Marking Code

BAP64-05

5W

Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	175	V
Continuous forward current	I_F	100	mA
Power dissipation	P_D	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	$^\circ\text{C}$

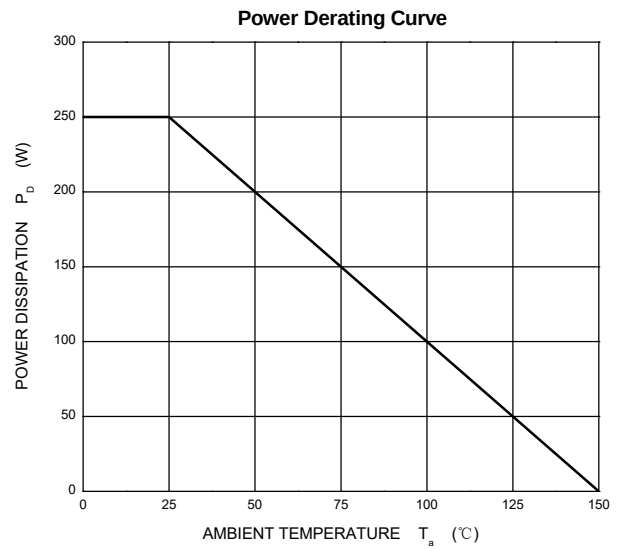
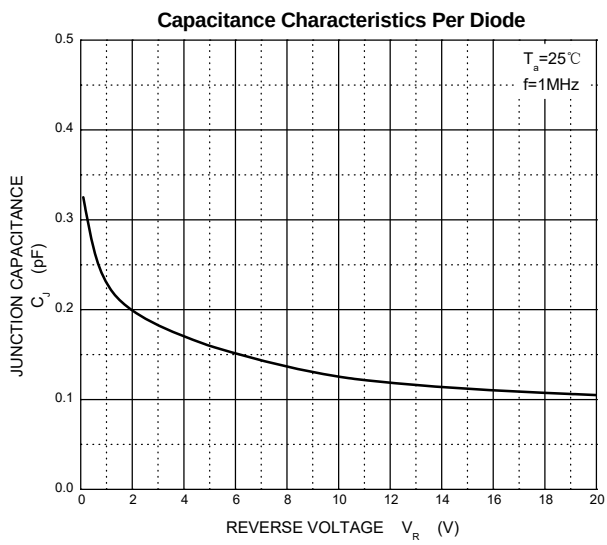
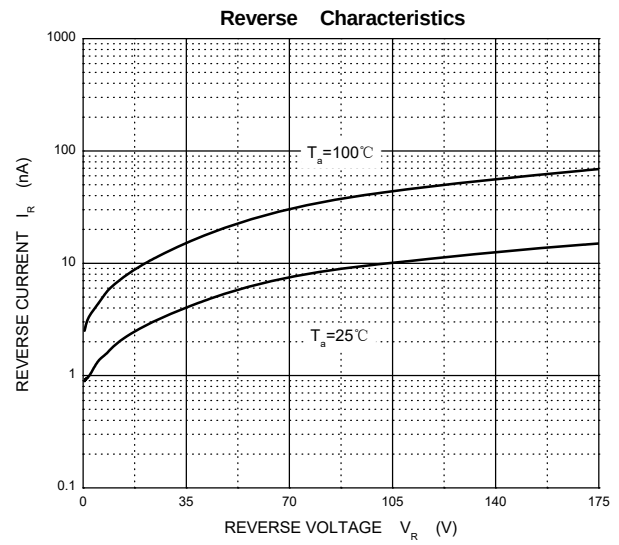
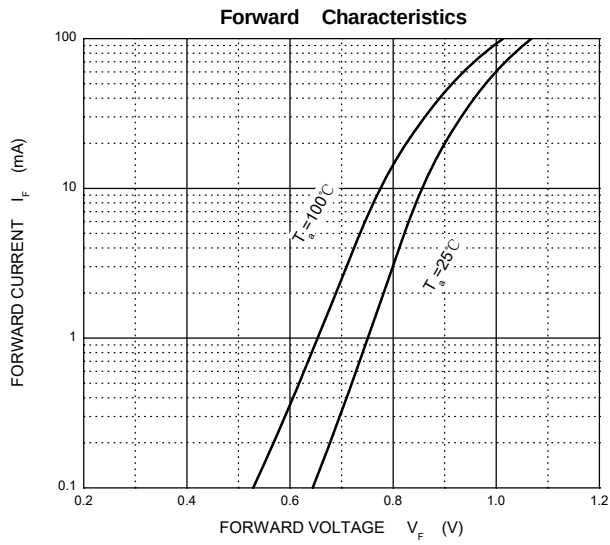
Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward Voltage	V_F			1.1	V	$I_F=50\text{mA}$
Reverse Current	I_{R1}			10	μA	$V_{R1}=175\text{V}$
	I_{R2}			1		$V_{R2}=20\text{V}$
Diode Capacitance	C_{d1}		0.52		pF	$V_R=0\text{V}, f=1\text{MHz}$
	C_{d2}			0.5		$V_R=1\text{V}, f=1\text{MHz}$
	C_{d3}			0.35		$V_R=20\text{V}, f=1\text{MHz}$
Diode Forward Resistance (note 1)	R_{d1}			40	Ω	$I_F=0.5\text{mA}, f=100\text{MHz}$
	R_{d2}			20		$I_F=1\text{mA}, f=100\text{MHz}$
	R_{d3}			3.8		$I_F=10\text{mA}, f=100\text{MHz}$
	R_{d4}			1.35		$I_F=100\text{mA}, f=100\text{MHz}$
Charge Carrier Life Time	τ_L		1.55		μs	When switched from $I_F=10\text{mA}$ to $I_R=6\text{mA}$; $R_L=100\Omega$; measured at $I_R=3\text{mA}$
Series Inductance	L_S		1.4		nH	$I_F=10\text{mA}, f=100\text{MHz}$

Note:

1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

Typical Characteristics



Ordering information

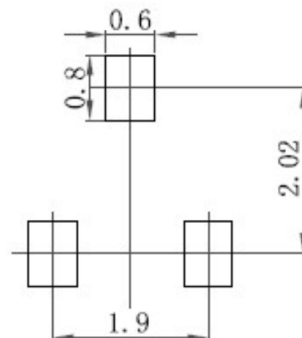
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



Disclaimer

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