

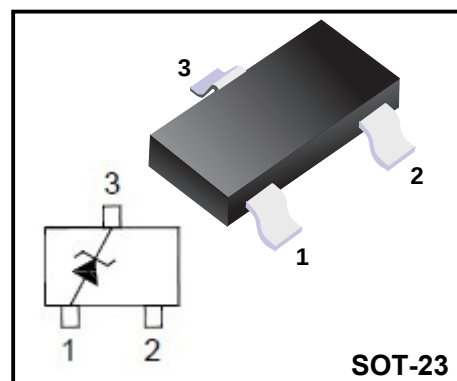
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 V

Forward Current - 0.5 A

FEATURES

- ◆ Low Forward Voltage Drop
- ◆ High Conductance



Marking Code

BAT400D

PK

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
DC Blocking Voltage	V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Current	I_O	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	3	A
Power Dissipation	P_D	480	mW
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	208	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-40 to +125	$^\circ\text{C}$

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

Parameters	Test conditions	Symbol	Min	TYP	Max	Unit
Reverse Breakdown Voltage	$I_R = 1\text{ mA}$	$V_{(BR)R}$	40	-	-	V
Forward Voltage	$I_F = 10\text{ mA}$ $I_F = 500\text{ mA}$	V_F	- -	- -	0.3 0.55	V
Reverse Current	$V_R = 10\text{ V}$ $V_R = 30\text{ V}$	I_R	- -	- -	30 50	μA
Total Capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$ $V_R = 10\text{ V}, f = 1\text{ MHz}$	C_{tot}	- -	125 20	- -	pF

Typical Characteristics

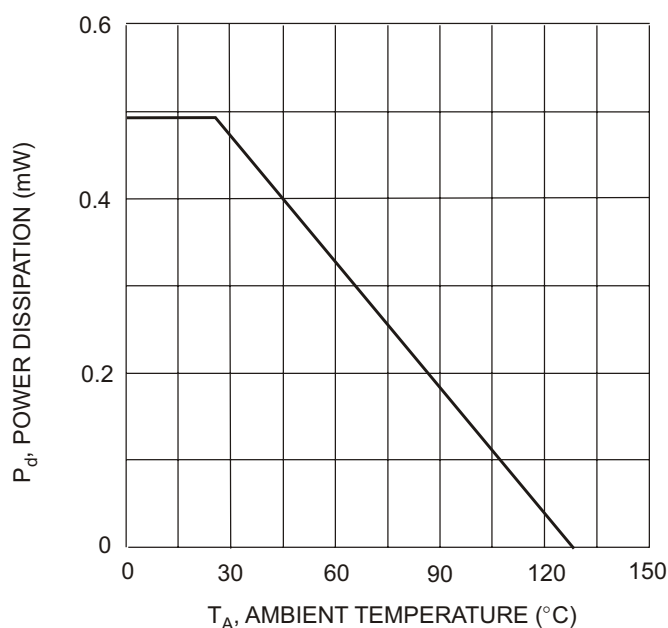


Fig. 1 Forward Current Derating Curve

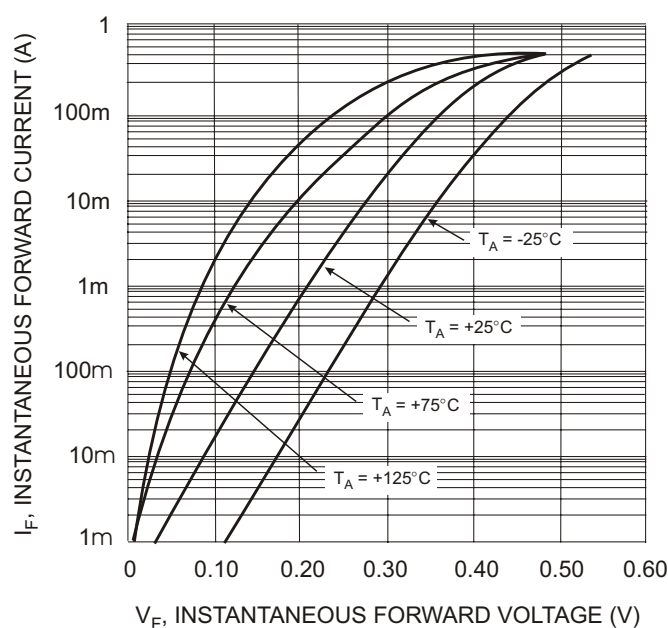


Fig. 2 Typical Forward Characteristics

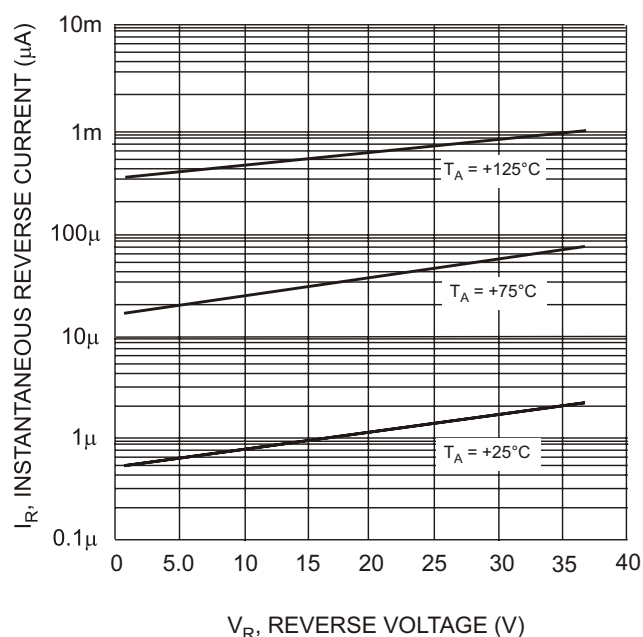


Fig. 3 Typical Reverse Characteristics

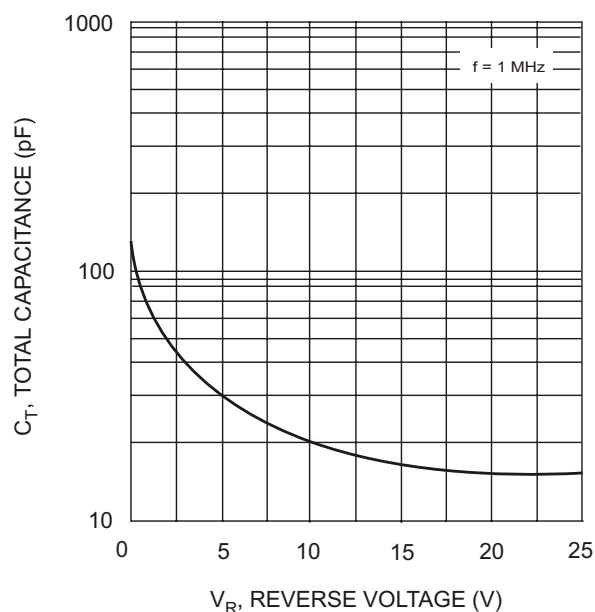


Fig. 4 Typical Total Capacitance vs. Reverse Voltage

Ordering information

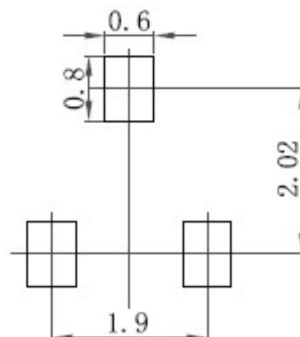
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

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



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