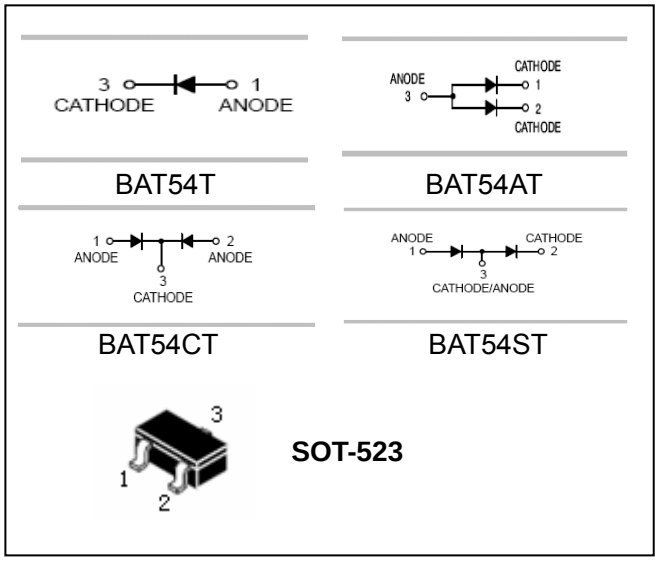
Surface Mount Schottky Barrier Diode BAT54T/AT/CT/ST

FEATURES

- Low forward voltage drop.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.

Lead-free



APPLICATIONS

- Schottky barrier diodes.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAT54T	L1	SOT-523
BAT54AT	L2	SOT-523
BAT54CT	L3	SOT-523
BAT54ST	L4	SOT-523

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{RRM} V_{RWM} V_R	Peak repetitive reverse voltage Working peak reverse voltage DC reverse voltage	30	V
I_F	Forward continuous voltage	200	mA
I_{FRM}	Repetitive peak forward voltage	300	mA
I_{FSM}	Non-repetitive peak forward surge current @t<1.0s	600	mA
P_d	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance junction to ambient	833	℃/W
T_j, T_{stg}	Junction and Storage Temperature	-65~150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	I_R=100μA	30		V
Leakage current	I_R	V_R=25V		2.0	μA
Forward voltage	V_F	I_F=0.1mA I_F=1.0mA I_F=10mA I_F=30mA I_F=100mA		240 320 400 500 1000	mV
Typical total capacitance	C_T	V_R=1.0V,f=1MHz		10	pF
Reverse recovery Time	t_{rr}	I_F=I_R=10mA,to I_R=1.0mA R_L=100Ω		5.0	ns

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

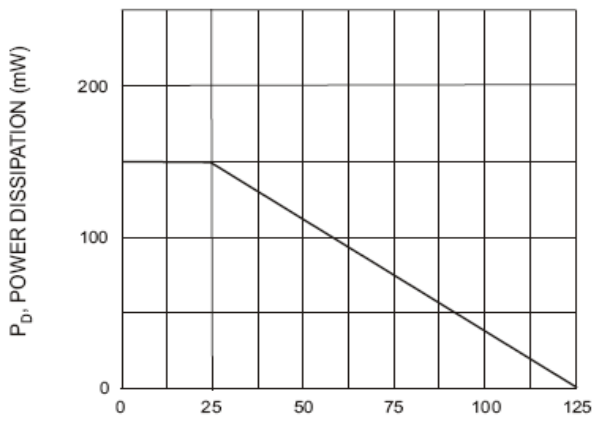

Fig. 1 Power Derating Curve

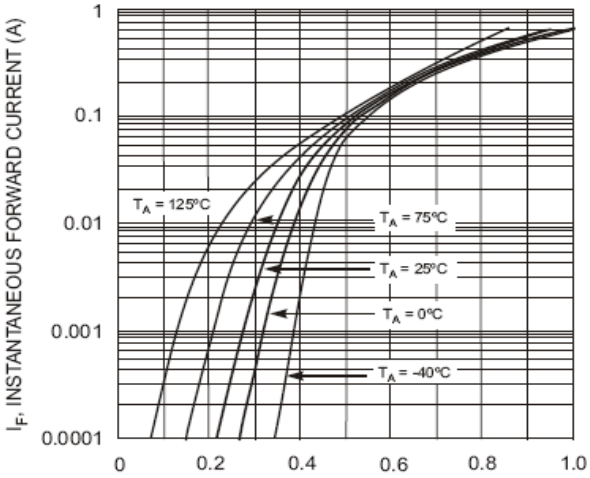

Fig. 2 Forward Characteristics

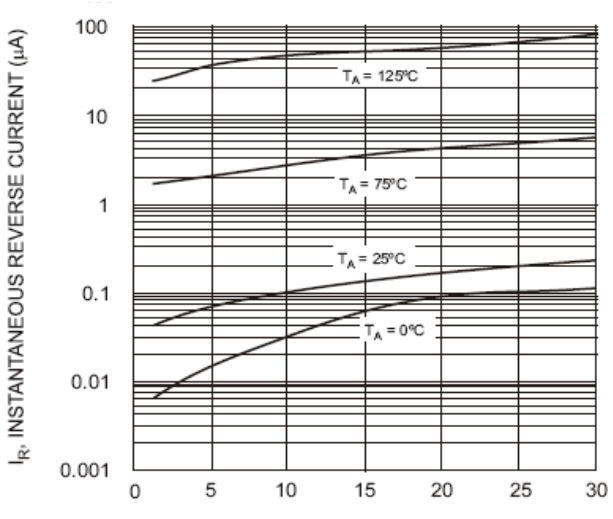

Fig. 3 Typical Reverse Characteristics

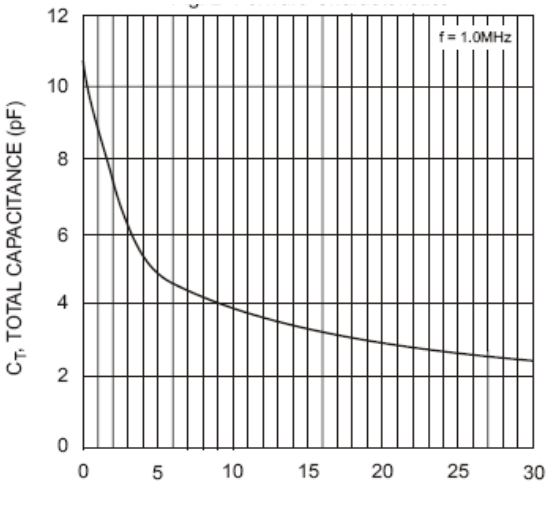

Fig. 4 Typical Capacitance vs. Reverse Voltage

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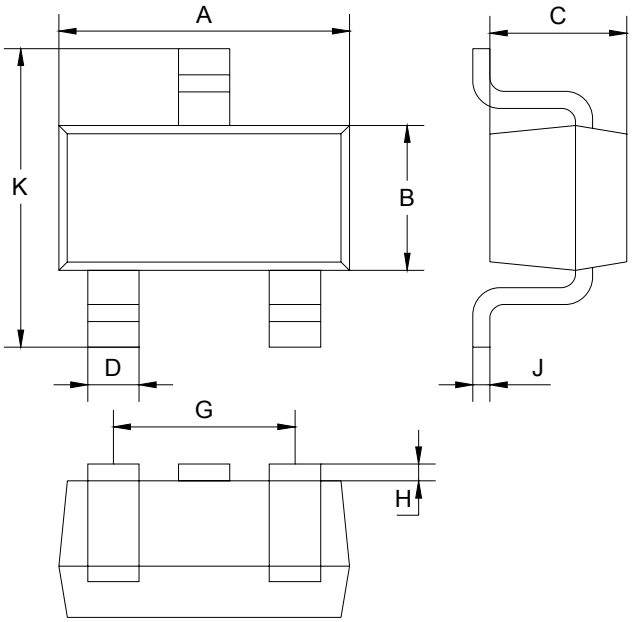
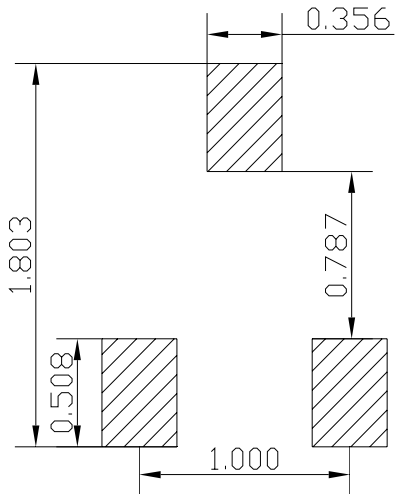
PACKAGE OUTLINE

Plastic surface mounted package SOT-523



SOT-523		
Dim	Min	Max
A	1.5	1.7
B	0.75	0.85
C	0.6	0.8
D	0.15	0.3
G	0.9	1.1
H	0.02	0.1
J	0.1Typical	
K	1.45	1.75
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAT54T/AT/CT/ST	SOT-523	3000/Tape&Reel