

Surface Mount Schottky Barrier Diode

BAT54T/AT/CT/ST

FEATURES

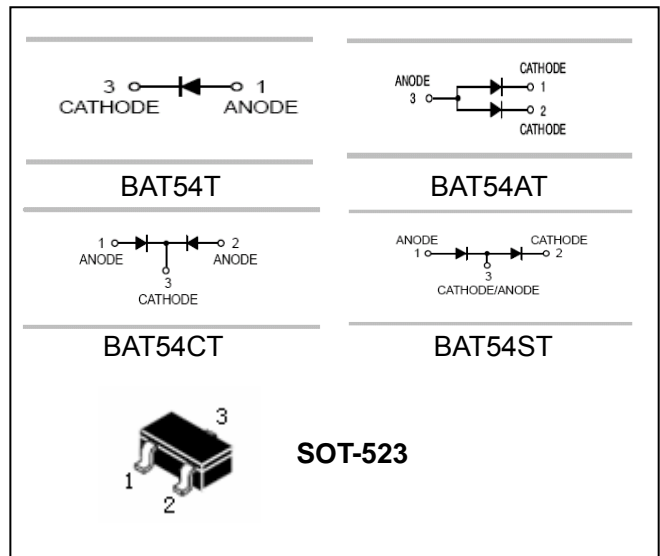
- Low forward voltage drop.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.



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°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{RRM}	Peak repetitive reverse voltage	30	V
V_{RWM}	Working peak reverse voltage		
V_R	DC reverse voltage		
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	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65~150	°C

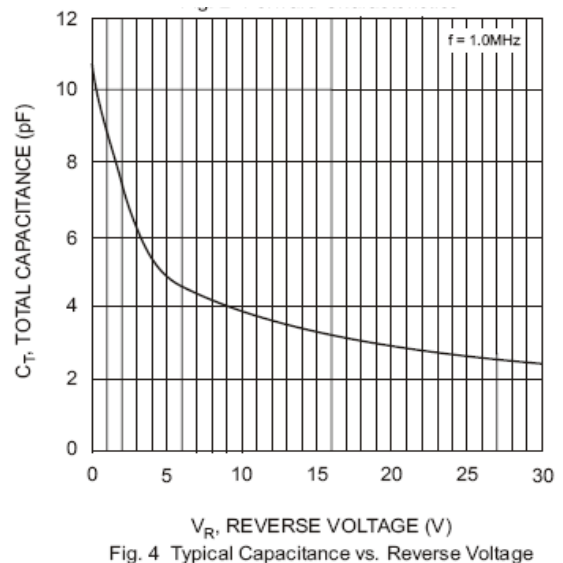
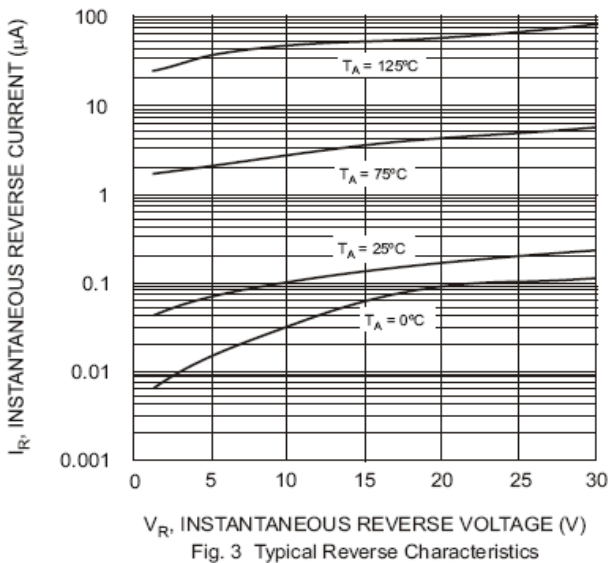
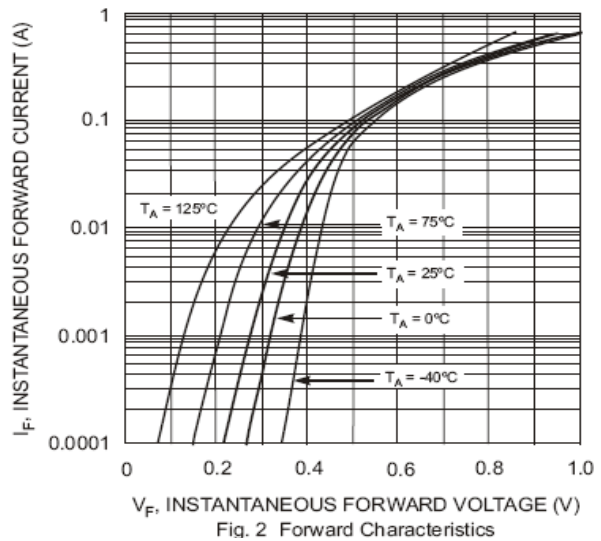
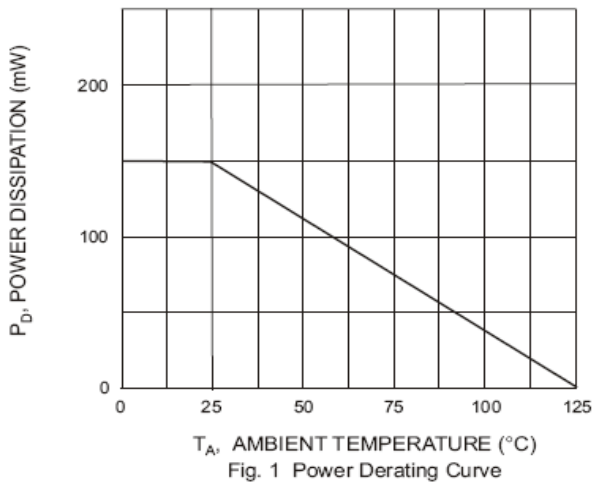
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



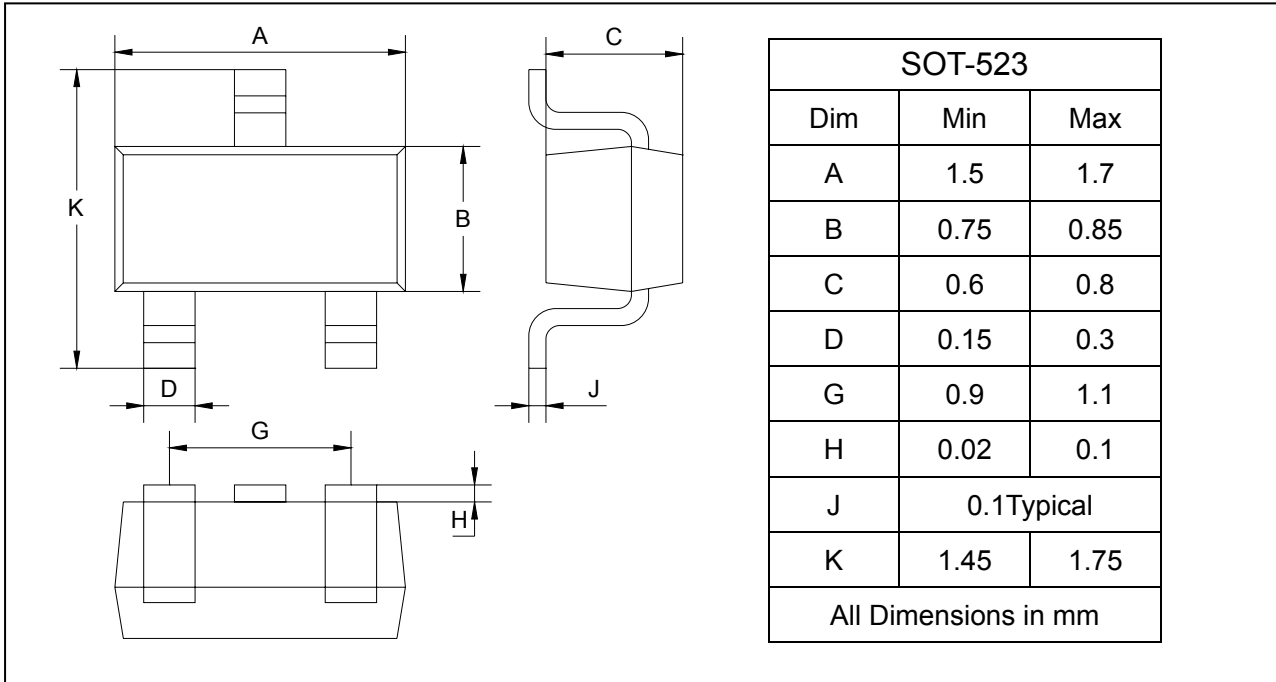
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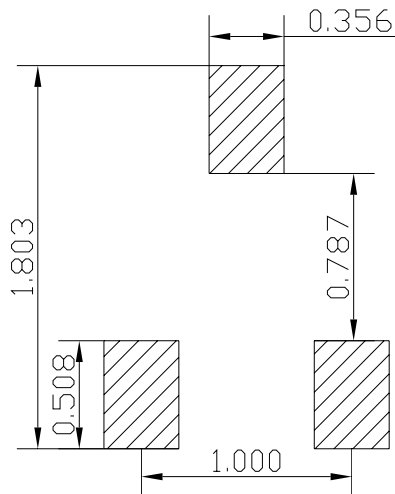
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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