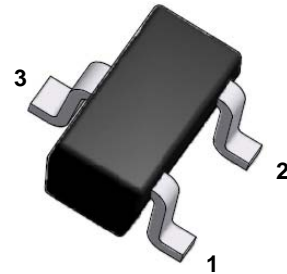


## 150mW SOT-523 SURFACE MOUNT Plastic Package Schottky Barrier Diode

Green Product



SOT-523

### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

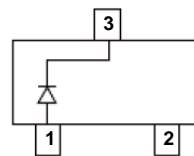
Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	150	mW
$T_{STG}$	Storage Temperature Range	-55 to +125	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	+125	$^\circ\text{C}$
$V_R$	Reverse Voltage	30	V
$I_{FO}$	Average Rectified Output Current	200	mA

These ratings are limiting values above which the serviceability of the diode may be impaired.

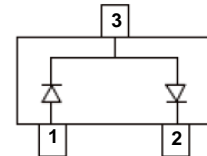
### Specification Features:

- Low Forward Voltage Drop
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish

### Electrical Symbol & Marking Codes:



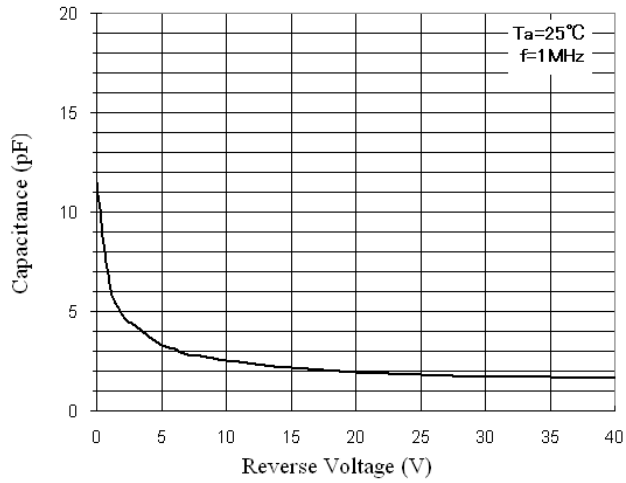
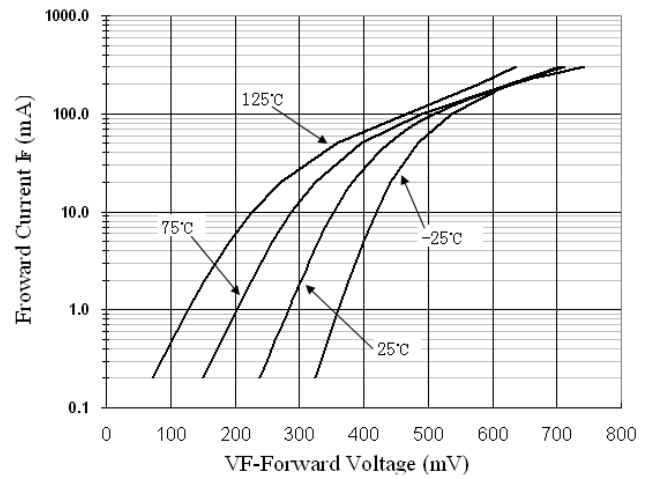
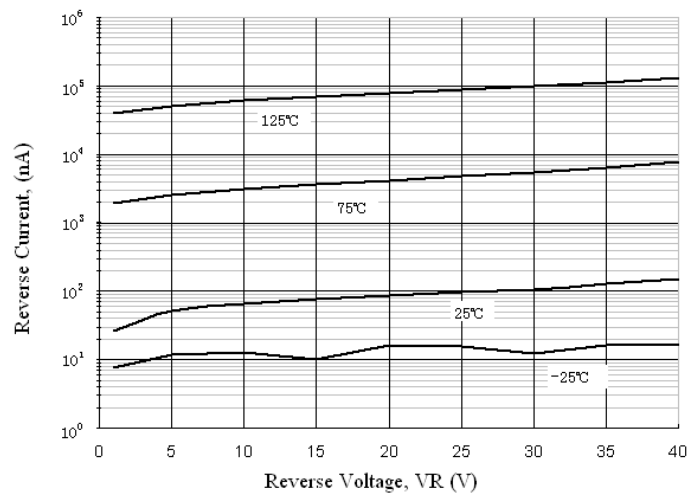
**BAT54T**  
Marking: L1



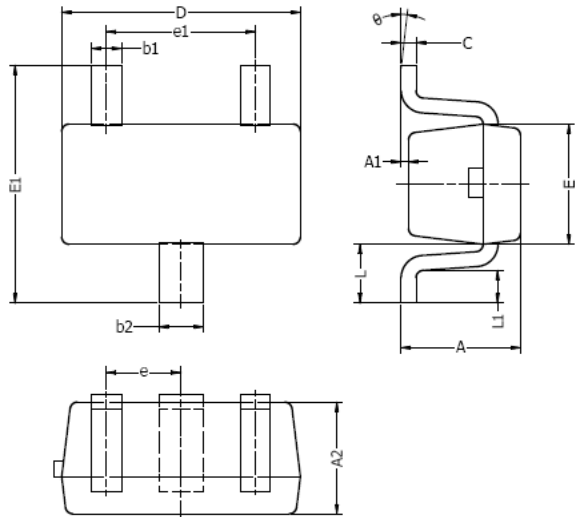
**BAT54ST**  
Marking: L4

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$V_{(BR)}$	Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	30		Volts
$I_R$	Reverse Leakage Current	$V_R=25\text{V}$		2	$\mu\text{A}$
$V_F$	Forward Voltage	$I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$		0.24 0.32 0.40 0.50 1	Volts
$C_T$	Total Capacitance	$V_R=1\text{V}$ , $f=1\text{MHz}$		10	pF
$T_{rr}$	Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $I_{RR}=0.1 \times I_R$ , $R_L=100\Omega$		5	nS

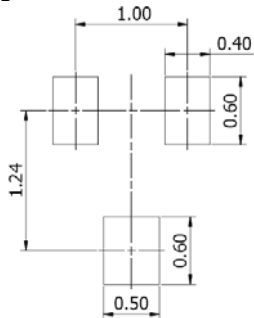
**Typical Performance Characteristics**
**Total Capacitance**

**Forward Voltage vs Ambient Temperature**

**Reverse Current vs Reverse Voltage**


SOT-523 Package Outline



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
A1	0.00	0.10	0.000	0.004
A2	0.70	0.80	0.028	0.031
b1	0.15	0.25	0.006	0.010
b2	0.25	0.35	0.010	0.014
c	0.10	0.20	0.004	0.008
D	1.50	1.70	0.059	0.067
E	0.70	0.90	0.028	0.035
E1	1.45	1.75	0.057	0.069
e	0.50 TYP.		0.020 TYP.	
e1	0.90	1.10	0.035	0.043
L	0.40 REF.		0.016 REF.	
L1	0.10	0.30	0.004	0.012
θ	0°	8°	0°	8°

Typical Soldering Pattern:



NOTES:

1. Above package outline conforms to JEITA EAIJ ED-7500A SC-75A.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

## **NOTICE**

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