

DATA SHEET

BAT54/A/C/S

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 30 Volts CURRENT 200 mA

FEATURES

- LOW TURN-ON VOLTAGE
- FAST SWITCHING
- LEAD FREE AND HALOGEN-FREE

MECHANICAL DATA

- CASE: SOT-23, PLASTIC
- TERMINALS: SOLDERABLE PER MIL-STD-202, METHOD 208
- APPROX. WEIGHT: 0.008 GRAMS



CASE: SOT-23

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	BAT54	BAT54A	BAT54C	BAT54S	UNITS
PEAK REPETITIVE REVERSE VOLTAGE	V_{RRM}			30		V
PEAK FORWARD CURRENT	I_F			0.2		A
PEAK FORWARD SURGE CURRENT, 1.0s (JEDEC METHOD)	I_{FSM}			0.6		A
POWER DISSIPATION	P_D			225		mW
OPERATION JUNCTION TEMPERATURE	T_J			125		°C
STORAGE TEMPERATURE RANGE	T_{STG}			- 55 TO +150		°C

ELECTRICAL CHARACTERISTICS (AT $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	BAT54	BAT54A	BAT54C	BAT54S	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE	V_F					$I_F=0.1\text{mA}$
						$I_F=1\text{mA}$
						$I_F=10\text{mA}$
						$I_F=30\text{mA}$
						$I_F=100\text{mA}$
MAXIMUM DC REVERSE CURRENT AT 25V	I_R			2.0		μA
DIODE CAPACITANCE AT $V_R=1\text{V}$, $f=1\text{MHz}$	C_D			10		pF

PARAMETER	SYMBOL	BAT54	BAT54A	BAT54C	BAT54S	UNITS
CIRCUIT FIGURE	-					-

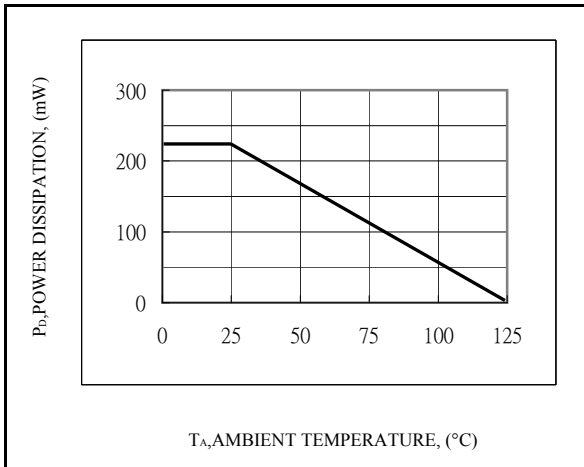


Fig.1-POWER DERATING CURVE

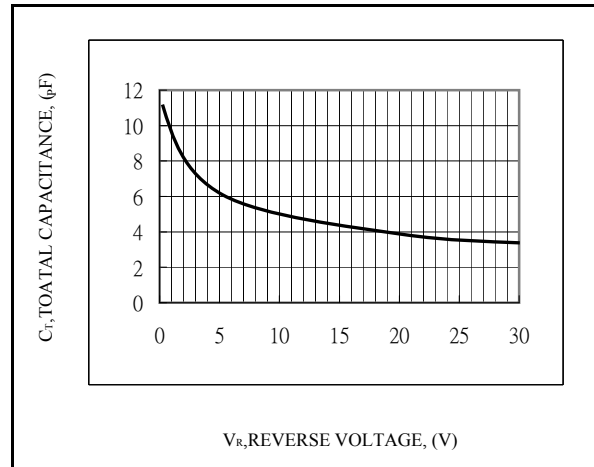


Fig.2-TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

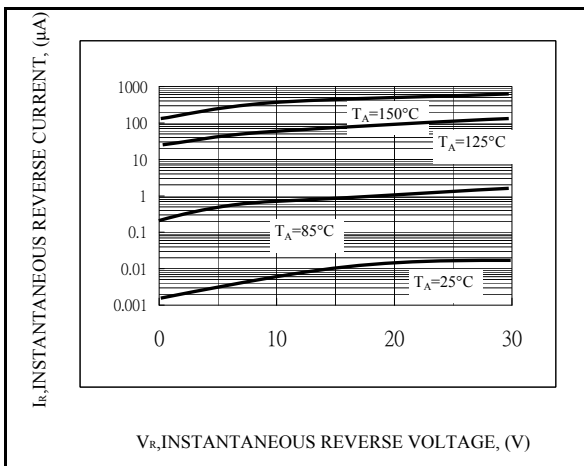


Fig.3- TYPICAL REVERSE CHARACTERISTICS

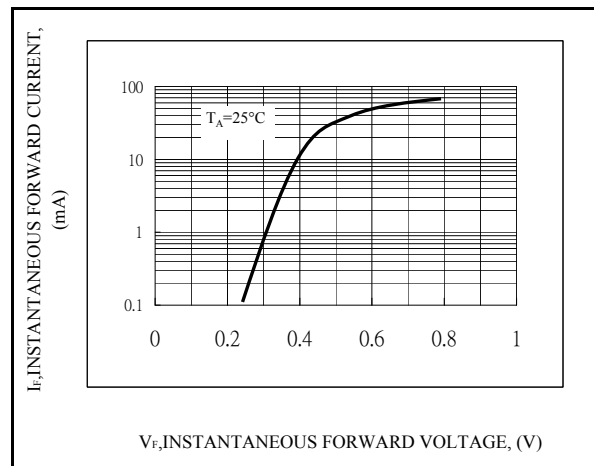
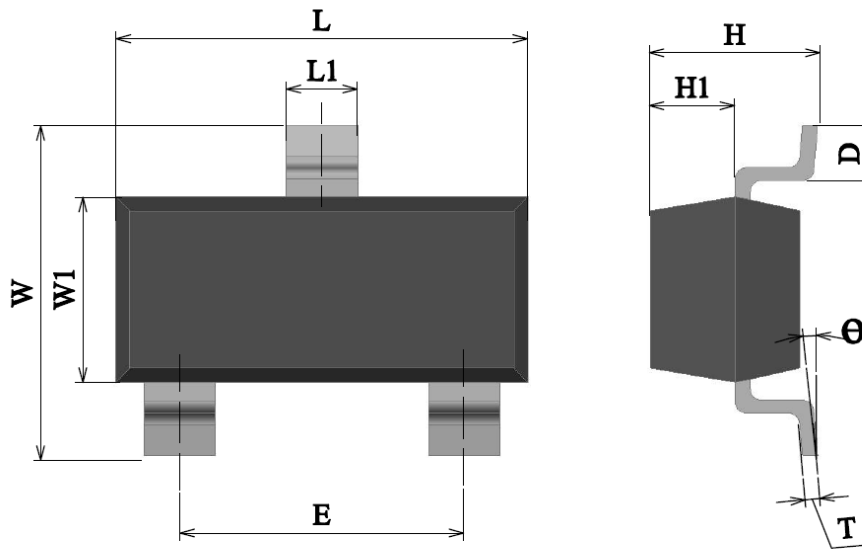


Fig.4- FORWARD CHARACTERISTIC

SOT-23 DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
L	2.80	3.10	0.110	0.122
L1	0.30	0.50	0.012	0.020
W	2.25	2.54	0.089	0.100
W1	1.20	1.40	0.047	0.055
E	1.80	2.00	0.071	0.079
H	0.90	1.15	0.035	0.045
H1	0.40	0.80	0.016	0.031
D	0.30	0.50	0.012	0.020
T	0.08	0.15	0.003	0.006
θ	0°	8°	0°	8°