



CHENMKO ENTERPRISE CO.,LTD

BAT54M1PT

**SURFACE MOUNT
SCHOTTKY DIODE**

VOLTAGE 30 Volts CURRENT 0.2 Ampere

Lead free devices

APPLICATION

- * Ultra high speed switching

FEATURE

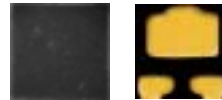
- * Small surface mounting type. (BAT54M1PT)
- * High speed. ($T_{RR}=2.5\text{nSec}$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 230mW.
- * Peak forward current is 300mA.

CONSTRUCTION

- * Silicon epitaxial planar

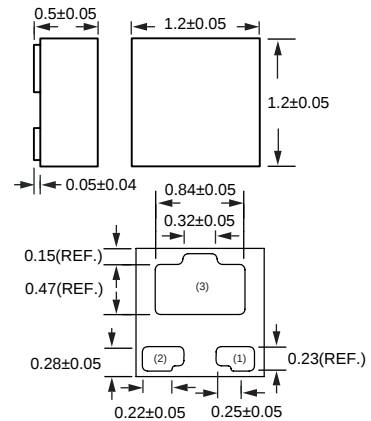
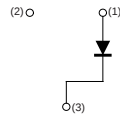
MARKING

- * LV4



FBPT-723

CIRCUIT



Dimensions in millimeters

FBPT-723

RATINGS	SYMBOL	BAT54M1PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	Volts
Maximum RMS Voltage	V_{RMS}	21	Volts
Maximum DC Blocking Voltage	V_{DC}	30	Volts
Maximum Average Forward Rectified Current	I_o	0.2	Amps
Peak Forward Surge Current at 1Sec.	I_{FSM}	0.6	Amps
Typical Junction Capacitance between Terminal (Note 1)	C_J	10	pF
Typical Case Resistance (Note 1)	$R_{\theta JC}$	307	$^{\circ}\text{C} / \text{W}$
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	354	$^{\circ}\text{C} / \text{W}$
Maximum Reverse Recovery Time (Note 2)	T_{RR}	5.0	nSec
Maximum Operating Temperature Range	T_J	+150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	BAT54M1PT	UNITS
Maximum Instantaneous Forward Voltage at $I_F=100\text{mA}$	V_F	1.0	Volts
Maximum Average Reverse Current at $V_R=25\text{V}$	I_R	2.0	μAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 1.0 volts.
2. Measured at applied forward current of 10mA and reverse current of 10mA.
3. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.2 X 0.2" (5 X 5mm) copper pad area.

2003-4

RATING CHARACTERISTIC CURVES (BAT54M1PT)

FIG. 1 - FORWARD CHARACTERISTICS

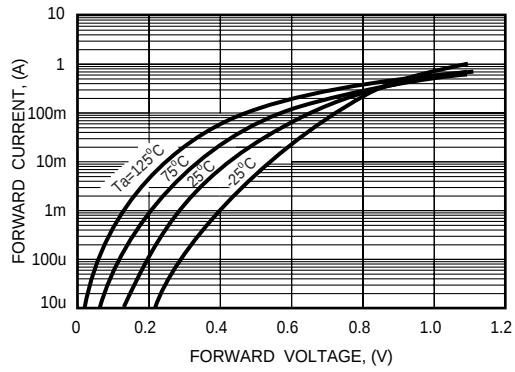


FIG. 2 - REVERSE CHARACTERISTICS

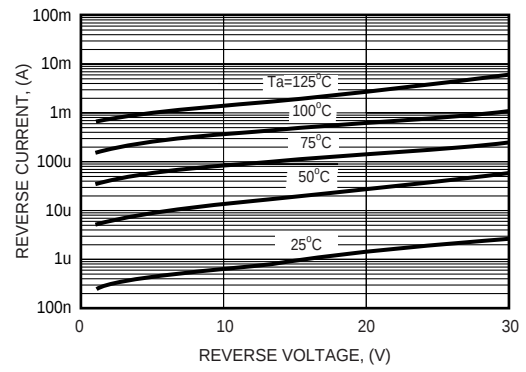


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

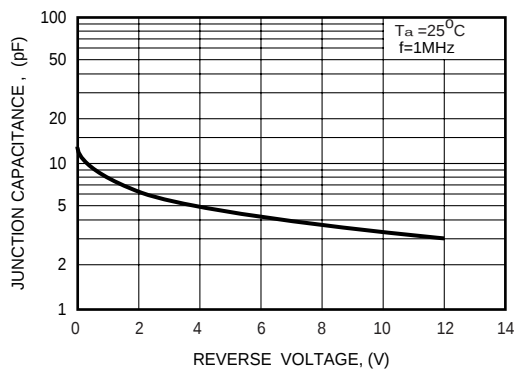


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

