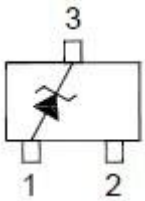
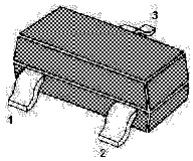
BAT400D SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

Low Forward Voltage Drop
High Conductance



Marking Code: PK



SOT-23 Plastic Package

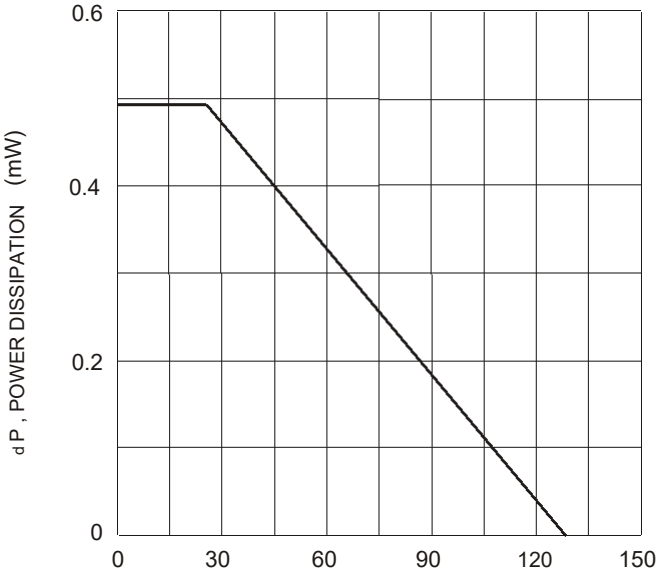
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
DC Blocking Voltage	V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Current	I_O	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-wave superimposed on rated load (JEDEC Meth d)	I_{FSM}	3	A
Power Dissipation	P_D	480	mW
Typicial Thermal Resistance, J nction to Ambi nt Air	$R_{\theta JA}$	208	°C/W
Operating and Storage Temperat re Range	T_{opr} ,T_s	- 40 to +125	°C

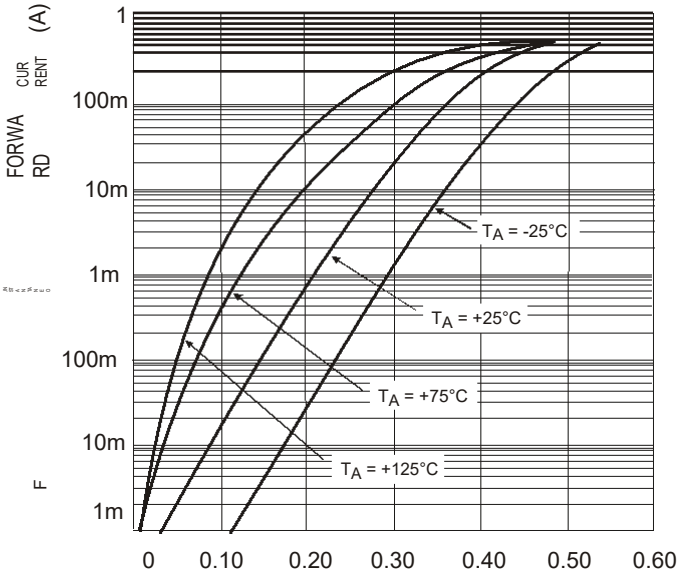
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at I_F = 10 mA at I_F = 500 mA	V_F	- -	- -	0.3 0.55	V
Reverse Breakdown Voltage at I_R = 1 mA	$V_{(BR)R}$	40	-	-	V
Reverse Current at V_R = 10 V at V_R = 30 V	I_R	- -	- -	30 50	μA
Total Capacitance at V_R = 0 V, f = 1 MHz at V_R = 10 V, f = 1 MHz	C_{tot}	- -	125 20	- -	pF

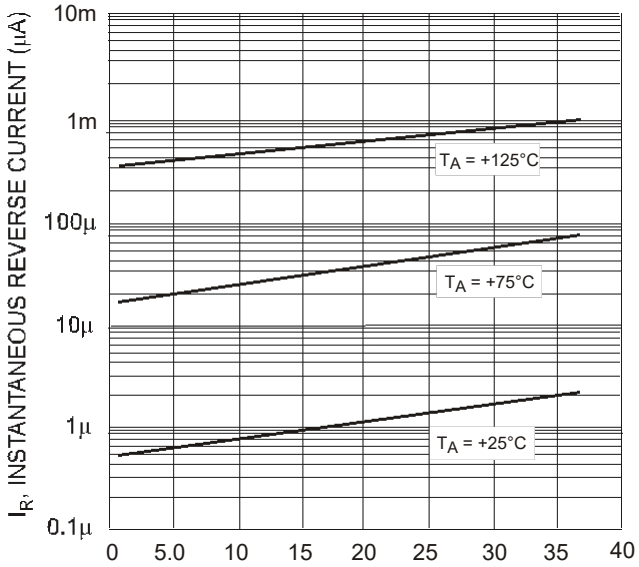
Typical Characteristics



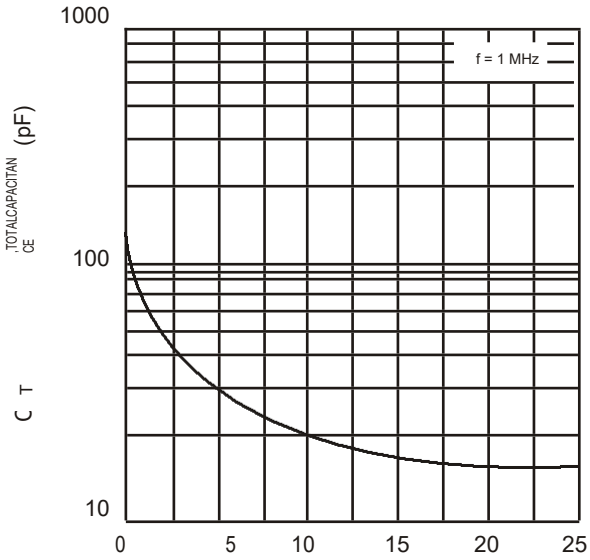
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



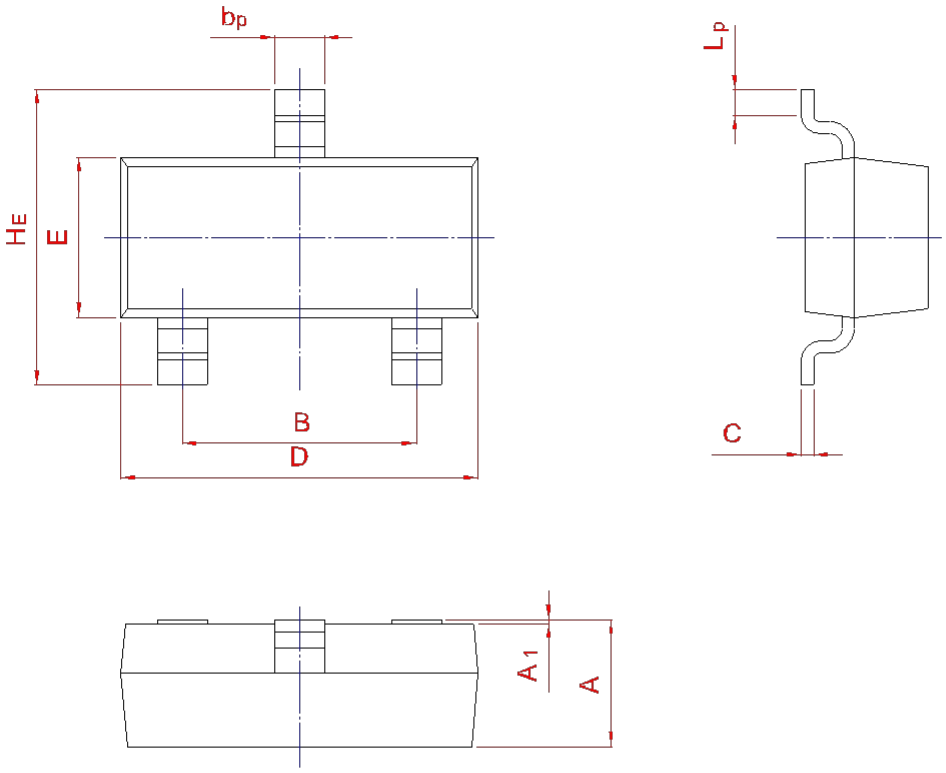
V_R, REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics



V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Total Capacitance vs. Reverse Voltage

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20