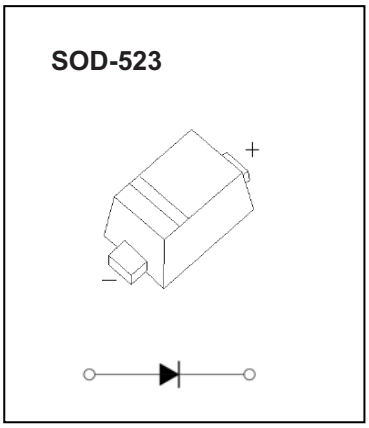
BAT30WT SCHOTTKY BARRIER DIODE



FEATURES

- Low capacitance diode
- Very low conduction losses
- Low forward and reverse recovery times

MARKING: 30

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	300	mA
Repetitive Peak Forward Current T_a = 85 °C, δ = 0.1	I_{FRM}	0.9	A
Peak Forward Surge Current (tp = 10 ms)	I_{FSM}	1	A
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient [1)]	$R_{\theta JA}$	500	℃/W

[1)] Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	30	-	-	V
Forward Voltage at I_F = 0.1 mA at I_F = 1 mA at I_F = 10 mA at I_F = 30 mA at I_F = 100 mA at I_F = 200 mA	V_F	 - - - - - -	 - - - - - -	 240 300 375 430 500 580	mV
Reverse Current at V_R = 5 V at V_R = 10 V at V_R = 25 V at V_R = 30 V at V_R = 10 V, Tj = 85℃	I_R	 - - - - -	 - - - - 18	 0.5 1 3 5 -	μA
Total Capacitance at V_R = 0 V, f = 1 MHz at V_R = 1 V, f = 1 MHz at V_R = 10 V, f = 1 MHz	C_T	 - - -	 22 14 6	 - - -	pF

Typical Characteristics

Fig 1. Reverse Characteristic Curve

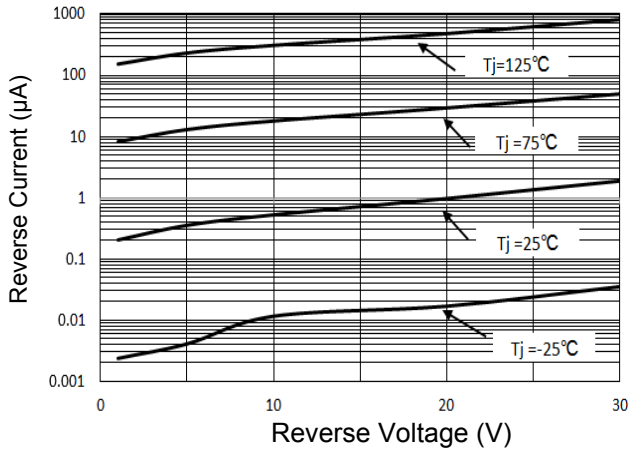


Fig 2. Forward Characteristic Curve

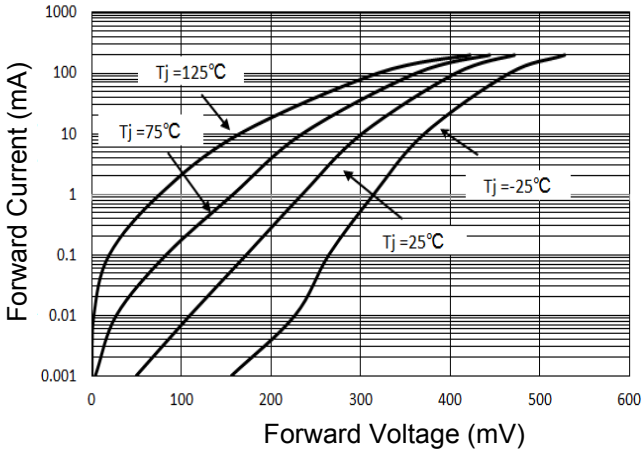


Fig 3. Junction Capacitance

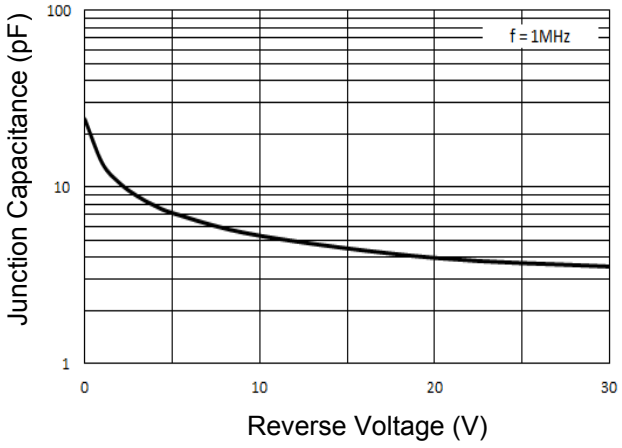
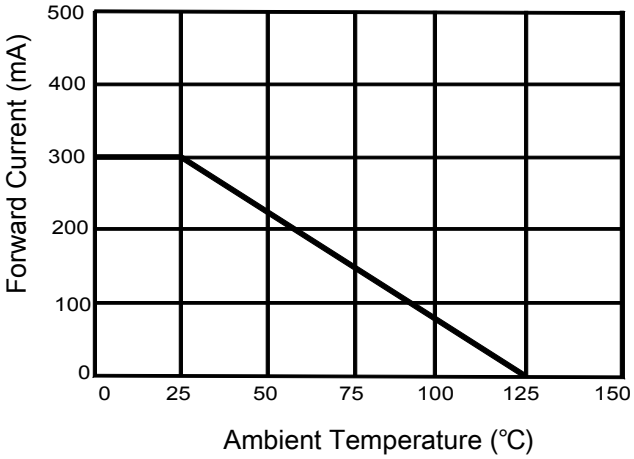
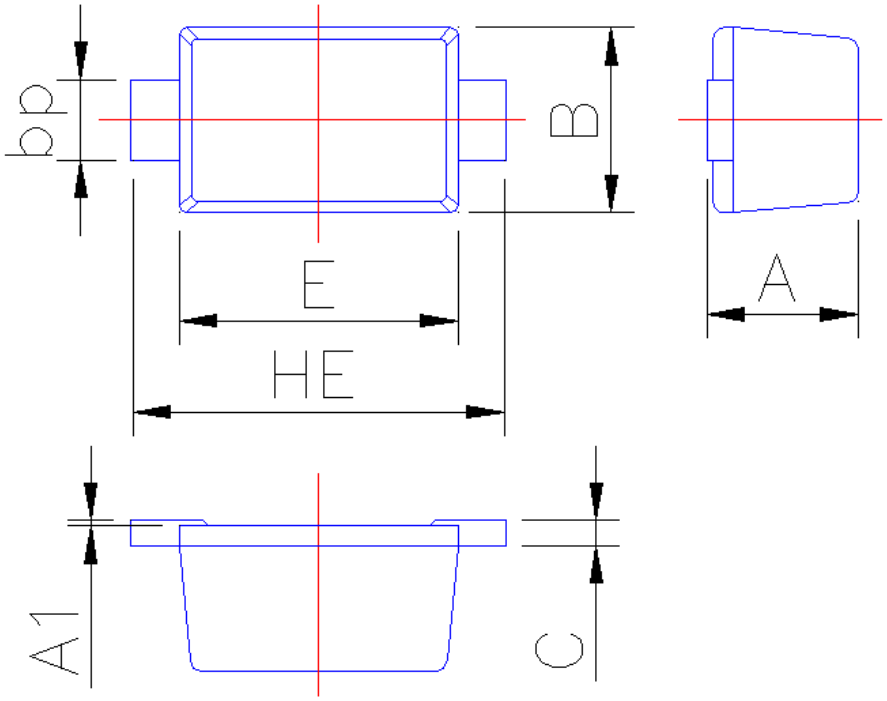


Fig 4. Forward Current Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
A1	0	0.05
B	0.75	0.85
bp	0.25	0.40
C	0.09	0.15
E	1.15	1.25
HE	1.50	1.70