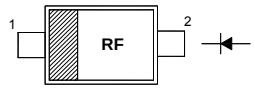
MBR0530WS

SURFACE MOUNT SCHOTTKY POWER RECTIFIER

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: **"RF"**
Simplified outline SOD-323 and symbol

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Maximum DC Blocking Voltage	V_R	30	V
Average Forward Rectified Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3 ms Single Half Sine-wave)	I_{FSM}	2	A
Power Dissipation [1)]	P_d	235	mW
Thermal Resistance Junction to Ambient [1)]	$R_{\theta JA}$	426	°C/W
Operating Junction Temperature	T_J	- 65 to + 125	°C
Storage Temperature Range	T_{stg}	- 65 to + 125	°C

[1)] 1 inch square pad size (1 X 0.5 inch for each lead) on FR4 board

Electrical Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 500 µA	$V_{(BR)R}$	30	-	V
Forward Voltage at I_F = 100 mA at I_F = 500 mA	V_F	- -	0.375 0.5	V
Reverse Current at V_R = 15 V at V_R = 20 V at V_R = 30 V	I_R	- - -	80 100 500	µA

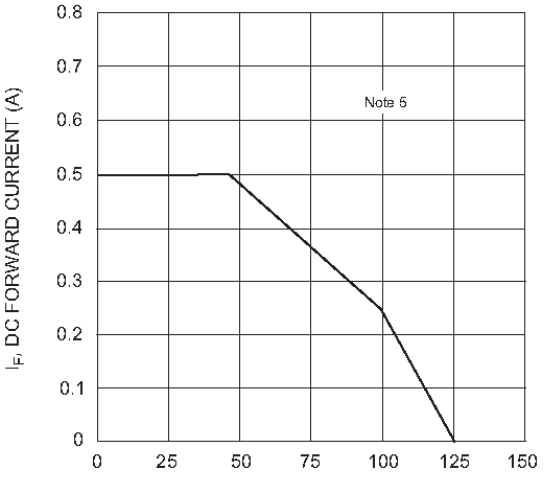


Fig. 1 Forward Current Derating Curve

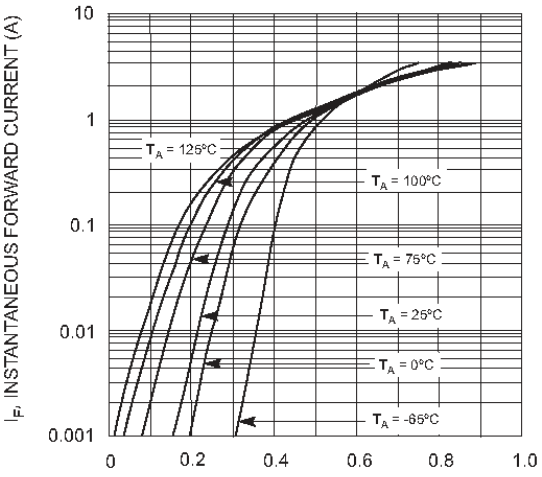


Fig. 2 Typical Forward Characteristics

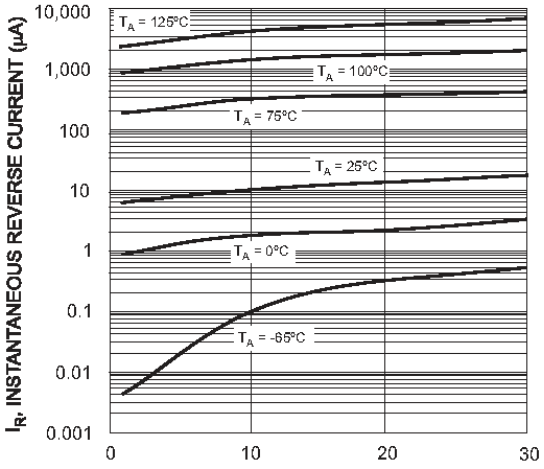


Fig. 3 Typical Reverse Characteristics

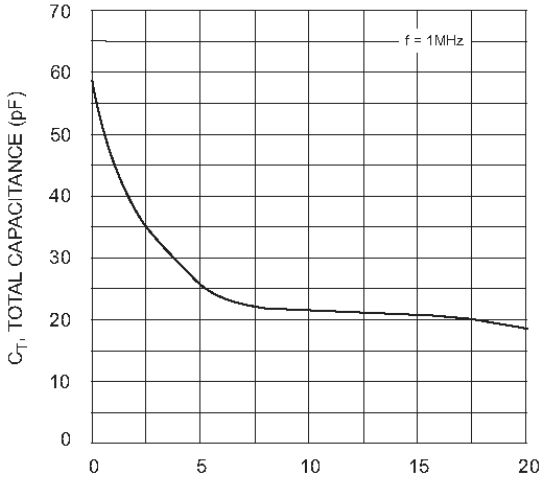


Fig. 4 Typ. Total Capacitance vs Reverse Voltage

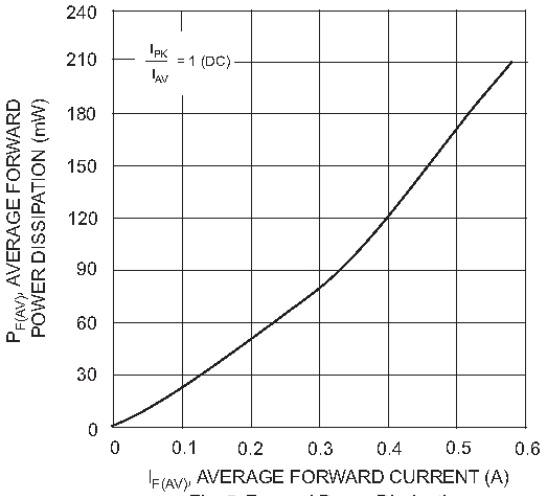
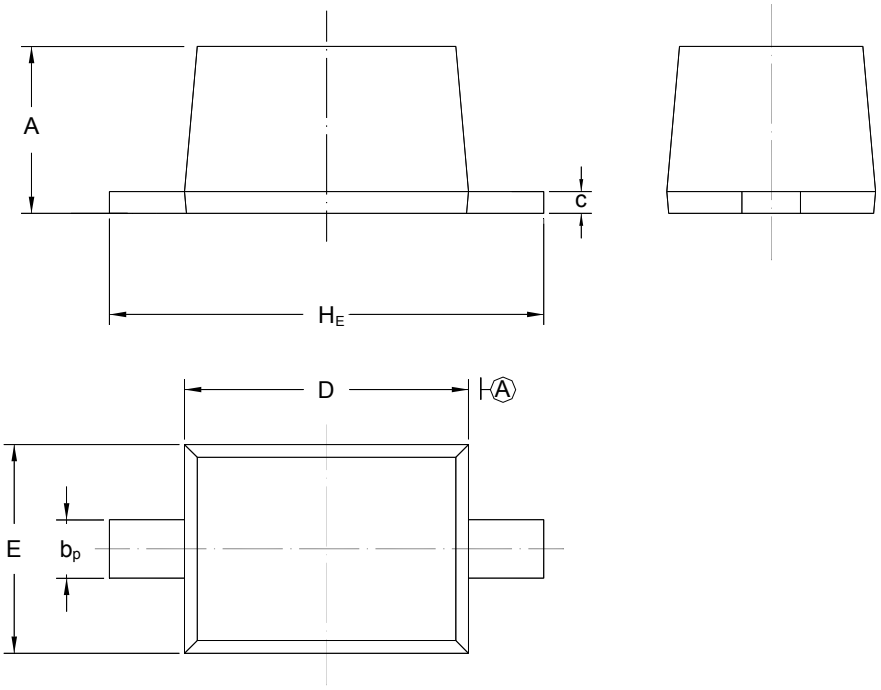


Fig. 5 Forward Power Dissipation

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30