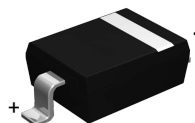


GSMBR0520-GSMBR0580 Schottky Barrier Diodes

Features

- Lead free finish, RoHS compliant
- Extremely low thermal resistance
- Small surface mount package



SOD-123



Schematic Diagram



RoHS
COMPLIANT

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSMBR 0520	GSMBR 0530	GSMBR 0540	GSMBR 0560	GSMBR 0580	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	60	80	V
Maximum RMS Voltage	V _{RMS}	14	21	28	42	56	V
Mean Rectifying Current	I _O	0.5					A
Peak Forward Surge Current (8.3ms Single Half Sine-Wave)	I _{FSM}	5.5					A
Power Dissipation	P _D	410					mW
Thermal Resistance Junction to Ambient	R _{θJA}	244					°C/W
Junction Temperature	T _J	125					°C
Storage Temperature	T _{STG}	-55 to +150					°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter		Symbol	Test Conditions	Typ	Max	Unit
Forward Voltage	GSMBR0520	V _F	I _F =500mA	-	0.45	V
	GSMBR0530			-	0.55	
	GSMBR0540			-	0.55	
	GSMBR0560			-	0.7	
	GSMBR0580			-	0.8	
Reverse Current	GSMBR0520	I _R	V _R =20V	-	80	μA
	GSMBR0530		V _R =30V	-		
	GSMBR0540		V _R =40V	-		
	GSMBR0560		V _R =60V	-		
	GSMBR0580		V _R =80V	-		
Capacitance		C _T	V _R =4V, F=1MHz	30	-	pF

Ratings and Characteristics Curves

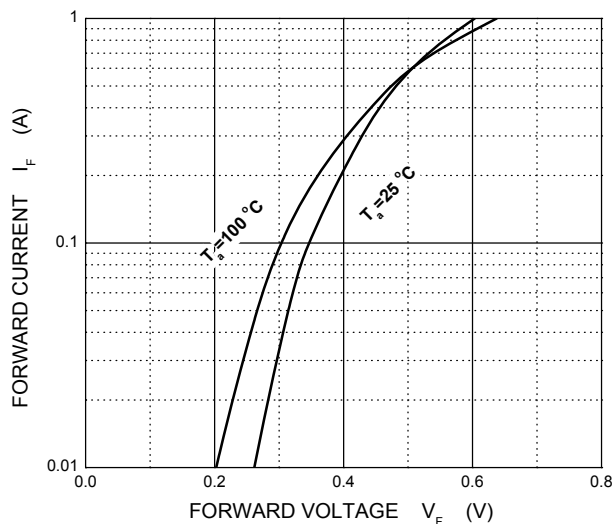


Figure 1. Forward Characteristics

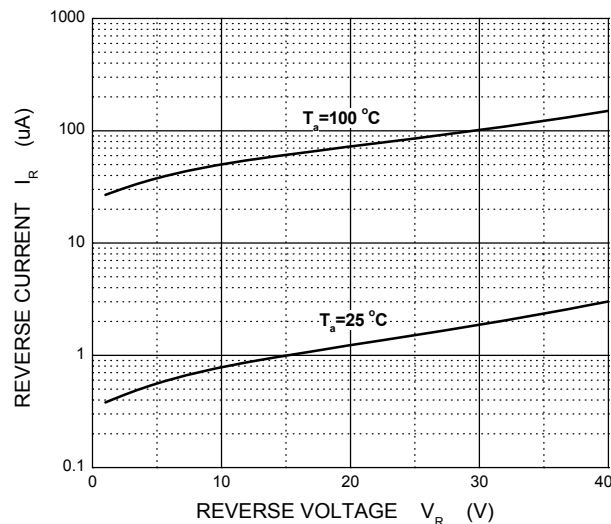


Figure 2. Reverse Characteristics

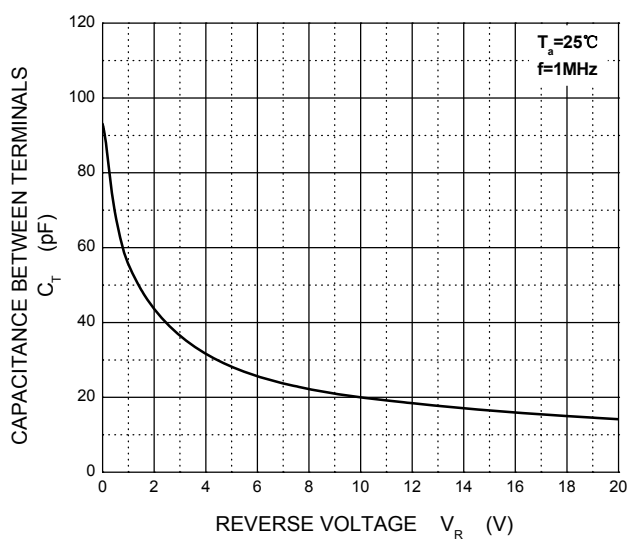


Figure 3. Capacitance Characteristics

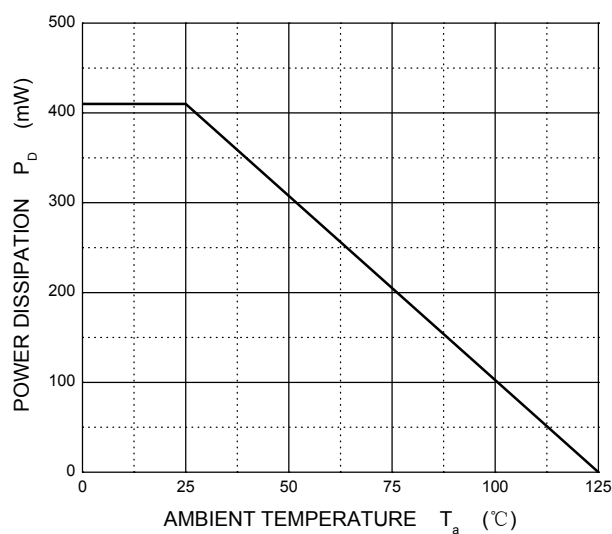
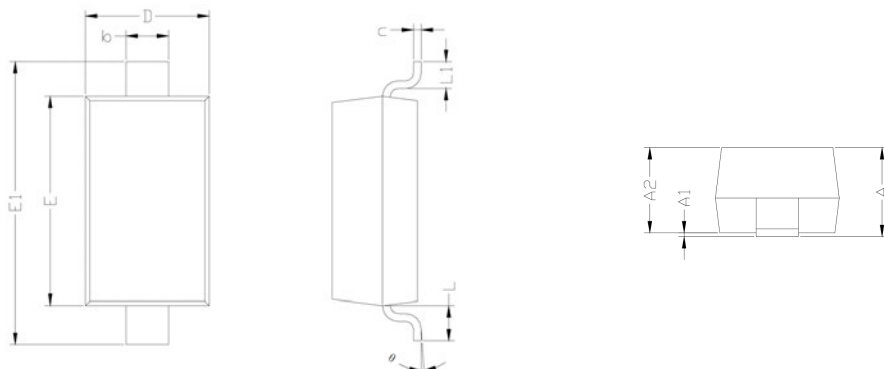


Figure 4. Power Derating Curve

Package Outline Dimensions (SOD-123)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Order information

Device	Package	Marking	Carrier	Quantity
GSMBR0520	SOD-123	R2	Tape & Reel	3,000 pcs / Reel
GSMBR0530	SOD-123	R3	Tape & Reel	3,000 pcs / Reel
GSMBR0540	SOD-123	R4	Tape & Reel	3,000 pcs / Reel
GSMBR0560	SOD-123	R6	Tape & Reel	3,000 pcs / Reel
GSMBR0580	SOD-123	R8	Tape & Reel	3,000 pcs / Reel