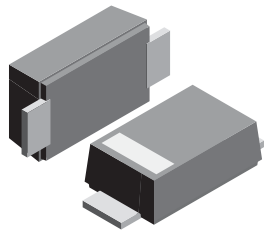
SDM20U40

SURFACE MOUNT SCHOTTKY BARRIER DIODE

VOLTAGE RANGE: 40V
CURRENT: 250mA



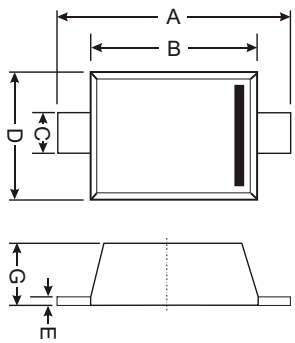
Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Surface Mount Package

Mechanical Data

- Case: SOD-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Marking Code: S4
- Weight: 0.002 grams (approx.)

RoHS COMPLIANT



SOD-523		
Dim	**Min**	**Max**
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current	I_{FM}	250	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s	I_{FSM}	1.0	A
Power Dissipation	P_d	150	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	667	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	40	—	—	V	I_R = 10μA
Forward Voltage Drop	V_F	—	—	0.37 0.60	V	I_F = 20mA I_F = 200mA
Peak Reverse Current	I_R	—	—	5 1	μA μA	V_R = 30V V_R = 10V
Total Capacitance	C_T	—	50	—	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	10	—	ns	I_F = I_R = 200mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

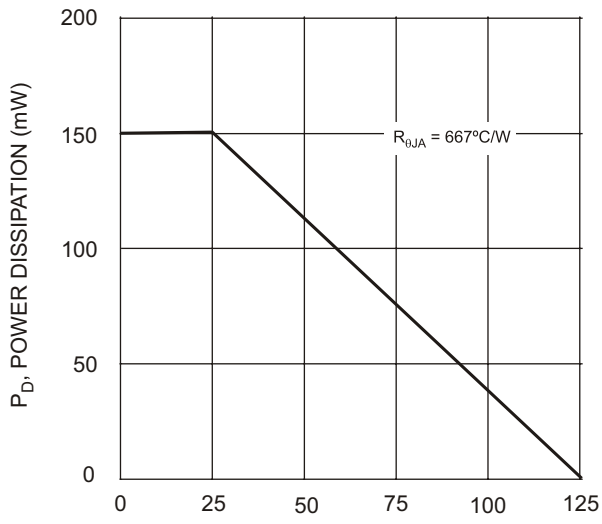


Fig. 1 Derating Curve

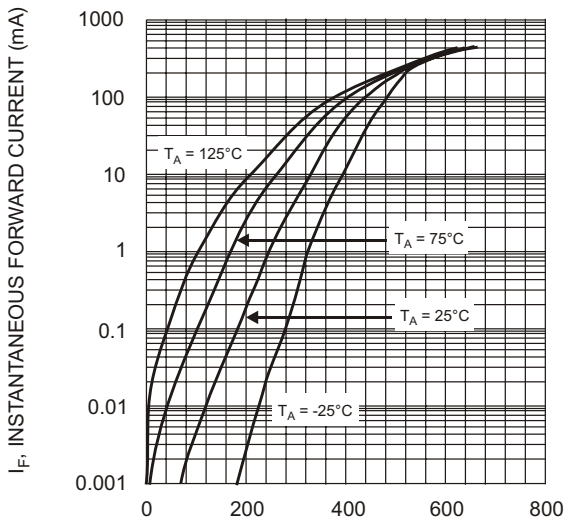


Fig. 2 Typical Forward Characteristics

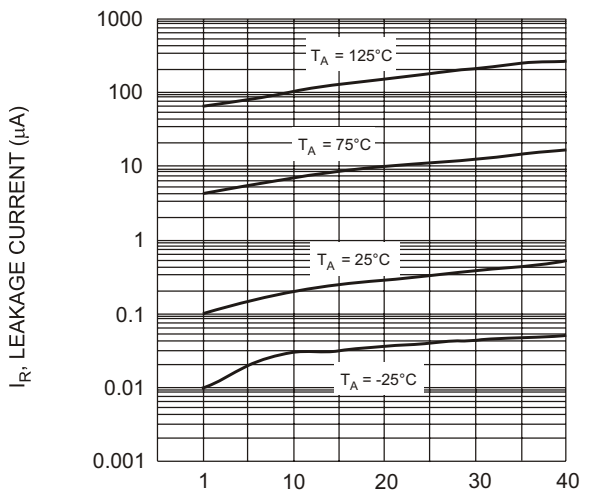


Fig. 3 Typical Reverse Characteristics

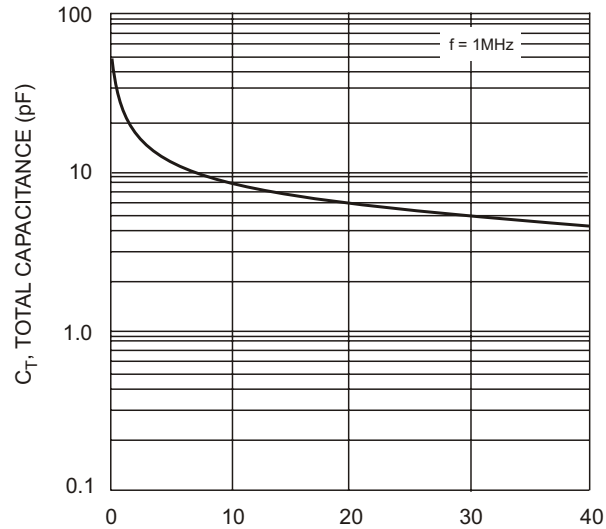


Fig. 4 Typ. Total Capacitance vs Reverse Voltage