Schottky Barrier Diodes

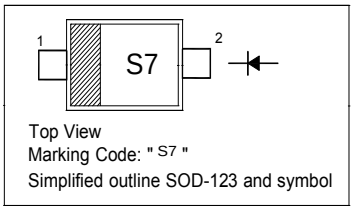
These Schottky barrier diodes are designed for high current, handling capability, and low forward voltage performance.

Features

- Low Forward Voltage − 0.24 Volts (Typ) @ I_F = 10 mAdc
- High Current Capability
- ESD Rating − Human Body Model: CLASS 3B
  − Machine Model: C
- Pb−Free Packages are Available

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: " S7 "
Simplified outline SOD-123 and symbol

MAXIMUM RATINGS (T_J = 125°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	20	Vdc
Peak Revese Voltage	V_{RM}	23	V
Forward Power Dissipation @ T_A = 25°C Derate above 25°C	P_F	 200 2.0	 mW mW/°C
Forward Current (DC) Continuous	I_F	 1	A
Forward Current t = 8.3 ms Half Sinewave	I_F	 5	A
Junction Temperature	T_J	125 Max	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

SR0320W

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Total Capacitance (V_R = 5.0 V, f = 1.0 MHz)	C_T	–	25	29	pF
Reverse Leakage (V_R = 15 V)	I_R	–	10	50	μAdc
Reverse Leakage (V_R = 2.0 V @ 85° C)	I_R	–	200	300	μA
Reverse Leakage (V_R = 15.0 V @ 85° C)	I_R	–	450	1000	μA
Forward Voltage (I_F = 10 mAdc)	V_F	–	0.24	0.27	Vdc
Forward Voltage (I_F = 100 mAdc)	V_F	–	0.30	0.35	Vdc
Forward Voltage (I_F = 900 mAdc)	V_F	–	0.45	0.50	Vdc

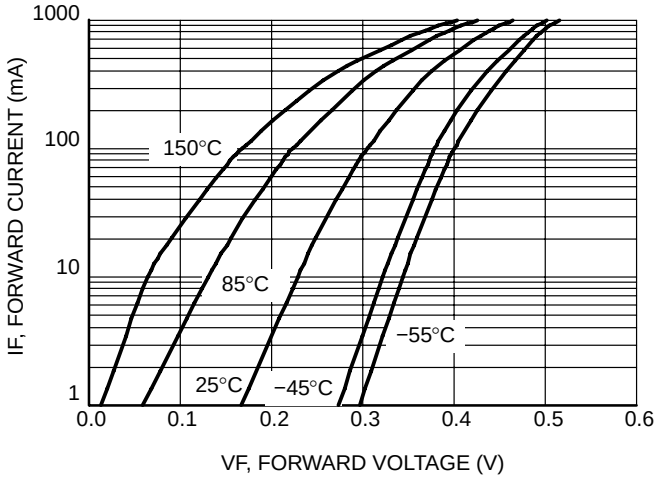


Figure 1. Forward Voltage

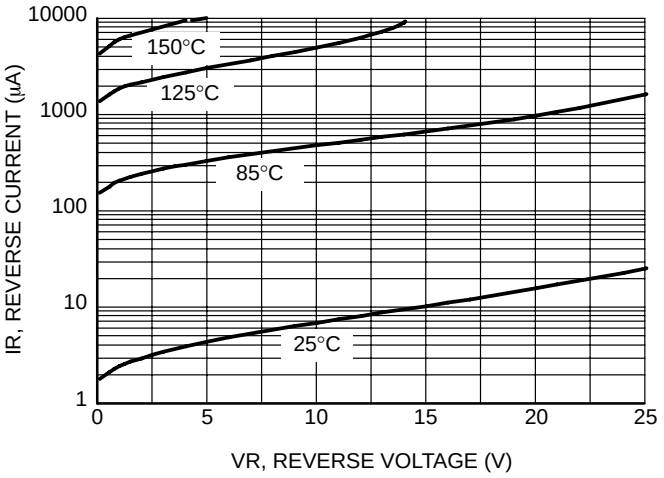


Figure 2. Leakage Current

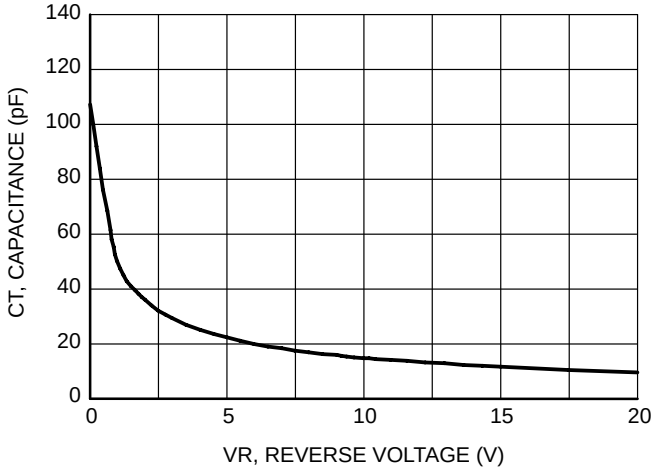


Figure 3. Total Capacitance