Features

- Halogen Free. “Green” Device (Note 1)
- AEC-Q101 Qualified
- Guard Ring Protection
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant("P" Suffix Designates RoHS Compliant.See Ordering Information)

400mW Small Signal Schottky Diode 20 to 40 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 250°C/W Junction to Ambient(Note 2)

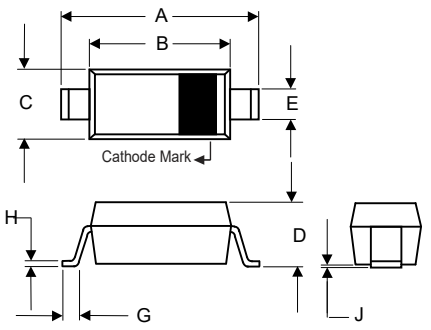
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
SD103AWHE3	40V	28V	40V
SD103BWHE3	30V	21V	30V
SD103CWHE3	20V	14V	20V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	350mA	(Note 2)
Peak Forward Surge Current	I_{FSM}	1.5A	t＜1s
Power Dissipation	P_d	400mW	

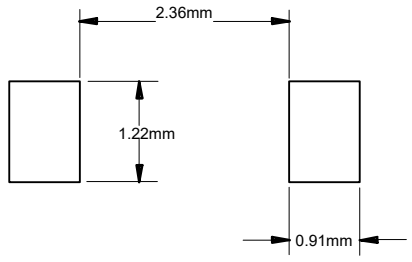
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
Note: 2.Mounted on FR-4 board with recommended pad layout.

SOD-123



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

Suggested Solder Pad Layout

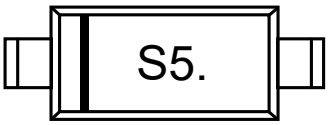


Internal Structure and Marking Code

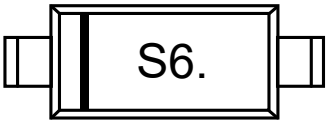




SD103AWHE3



SD103BWHE3



SD103CWHE3

Electrical Characteristics @ 25° C Unless Otherwise Specified

SD103AWHE3

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=100μA	40			V
Forward Voltage	V_F	I_F=20mA			0.37	V
		I_F=200mA			0.60	V
Reverse Current	I_R	V_R=30V			5	uA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			50	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=200mA, I_{rr}=1mA,R_L=100Ω			10	ns

SD103BWHE3

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=100μA	30			V
Forward Voltage	V_F	I_F=20mA			0.37	V
		I_F=200mA			0.60	V
Reverse Current	I_R	V_R=20V			5	uA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			50	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=200mA, I_{rr}=1mA,R_L=100Ω			10	ns

SD103CWHE3

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=100μA	20			V
Forward Voltage	V_F	I_F=20mA			0.37	V
		I_F=200mA			0.60	V
Reverse Current	I_R	V_R=10V			5	uA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			50	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=200mA, I_{rr}=1mA,R_L=100Ω			10	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

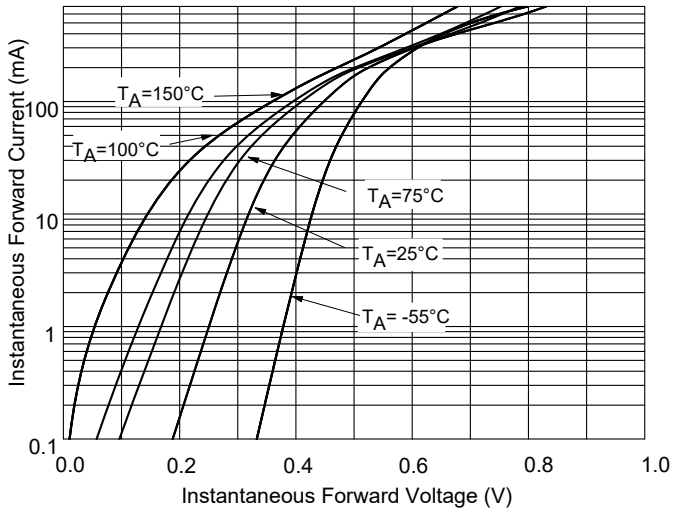


Fig. 2 - Typical Reverse Leakage Characteristics

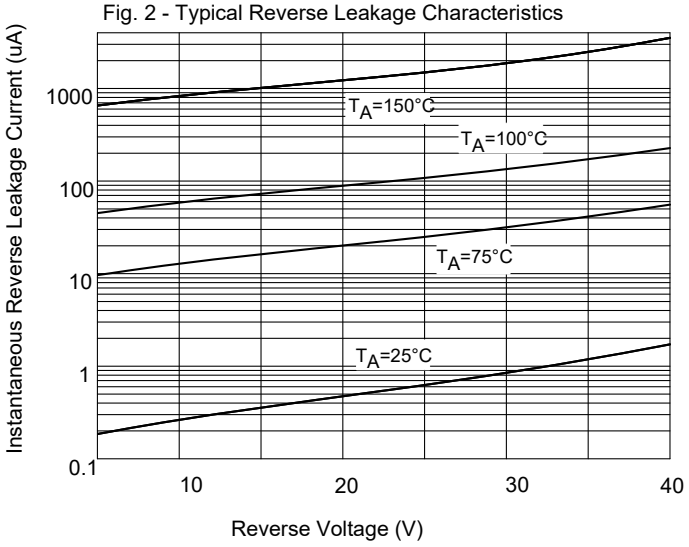


Fig. 3 - Capacitance Characteristics

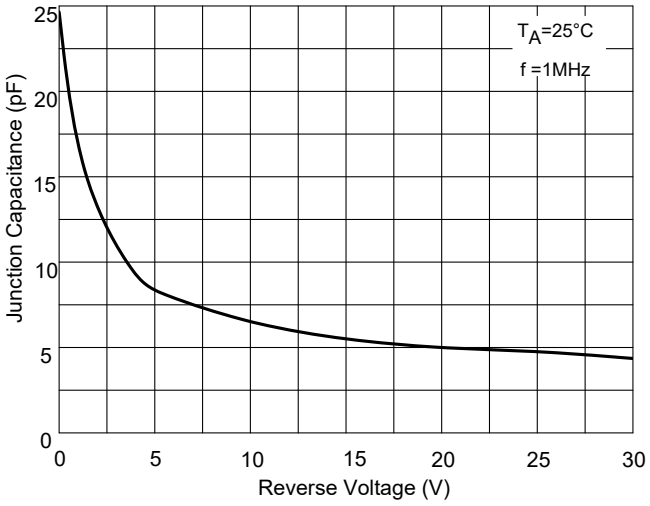
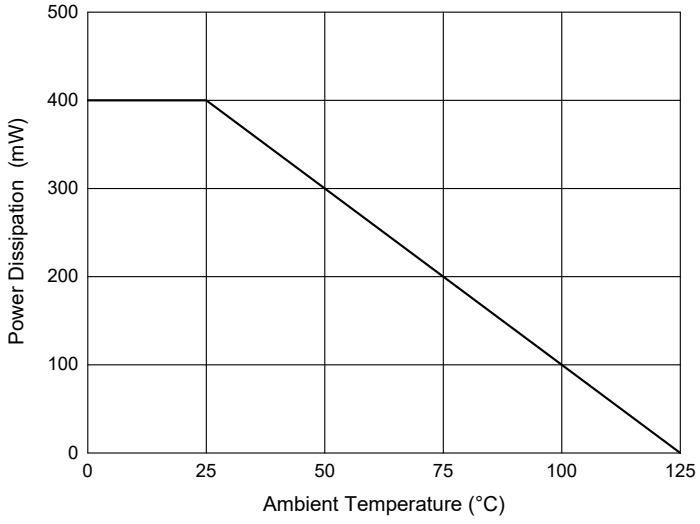


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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