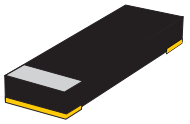
SMD Switching Diode

COMCHIP
SMD Diodes Specialist

CDSWM4148 (RoHS Device)

High Speed



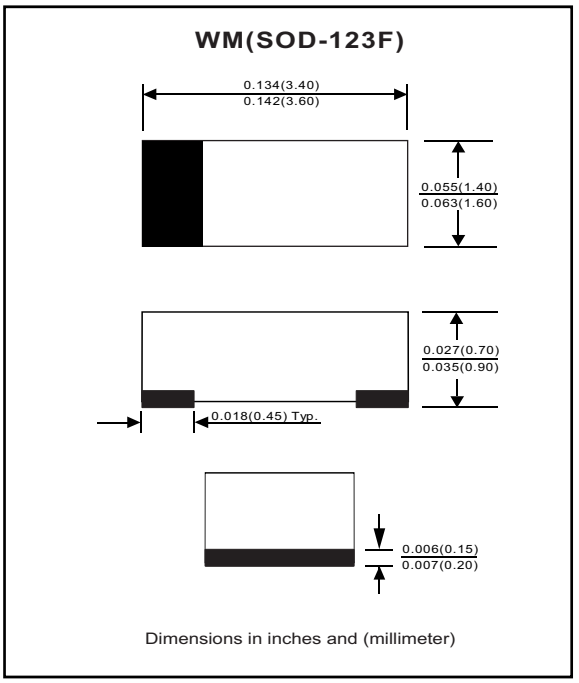
Features

Designed for mounting on small surface.

Extremely thin / leadless package.

High speed switching.

High mounting capability, strong surge withstand ,high reliability.



Mechanical data

Case: SOD-123F molded plastic, fits onto footprint of minimelf and SOD-123 on PCB.

Terminals: Gold plated, solderable per MIL-STD-750,method 2026.

Polarity: Indicated by cathode band.

Mounting position: Any

Weight: 0.0115 gram(approx.).

Maximum Rating (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			100	V
Reverse voltage		V_R			75	V
Average forward current		I_O			150	mA
Forward current,surge peak	T_P = 1uS T_P = 1mS	I_{FSM}		4 1		A
Repetitive peak forward current		I_{FRM}			300	mA
Power Dissipation		P_D			350	mW
Thermal Resistance Junction To ambient air		$R_{\theta JA}$			285	°C/W
Storage temperature		T_{STG}	-55		+125	°C
Junction temperature		T_j			+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 50 mADC	V_F			1.0	V
Reverse current	V_R = 20 V V_R = 75 V	I_R			25 2.5	nA uA
Capacitance between terminals	f = 1 MHz,and 0VDC reverse voltage	C_T			4	pF
Reverse recovery time	I_F = I_R 10 mA, R_L =100 ohms, Irr= 1 mA	T_{RR}			4	nS

Rating and Characteristic Curves (CDSWM4148)

Fig. 1 - Forward characteristics

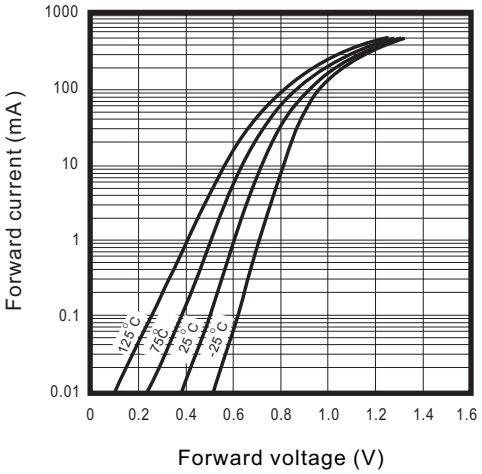


Fig. 2 - Reverse characteristics

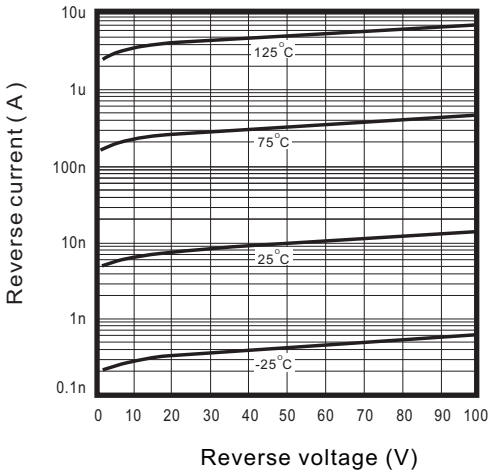


Fig.3 - Capacitance between terminals characteristics

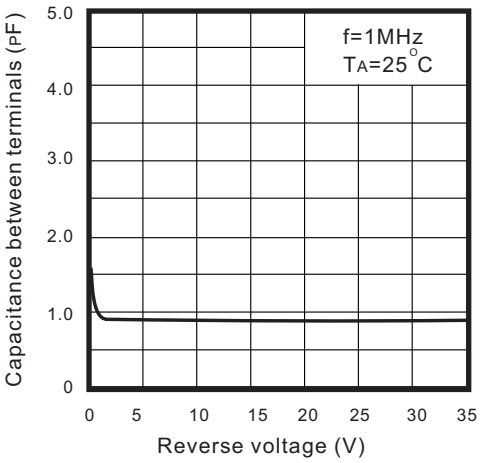


Fig.4 - Current derating curve