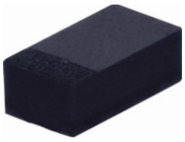
SMD Switching Diode

COMCHIP
SMD Diodes Specialist

CDSFR4148(RoHs Device)

High Speed



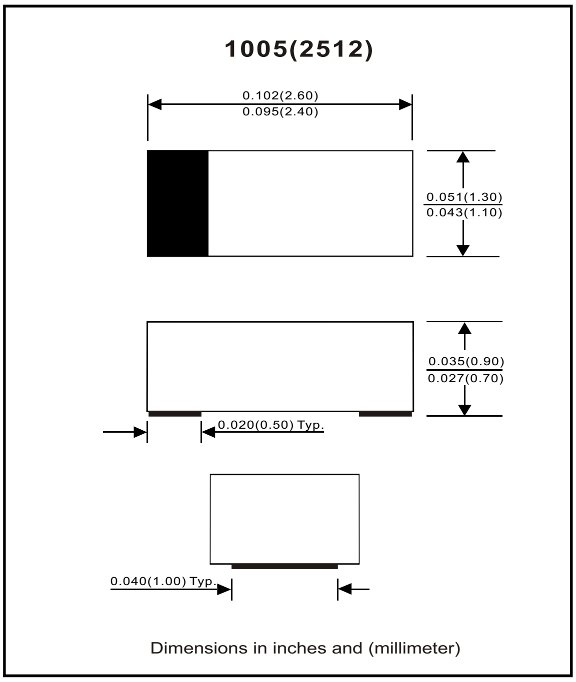
Features

Designed for mounting on small surface.

Extremely thin/leadless package.

High mounting capability, strong surge withstand, high reliability.

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, automotive and telecommunication.



Mechanical data

Case: 1005(2512) standard package, molded plastic.

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

Polarity: Indicated by cathode band.

Mounting position: Any

Weight: 0.006 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
Storage temperature		T_{STG}	-40		+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 mA DC	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, I_{rr} = 1mA	T_{rr}			4	nS

RATING AND CHARACTERISTIC CURVES (CDSFR4148)

Fig. 1 - Forward characteristics

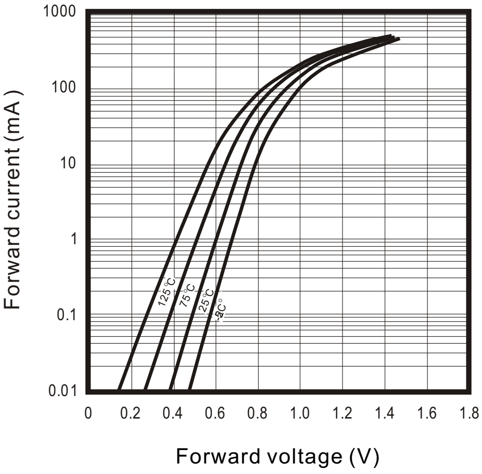


Fig. 2 - Reverse characteristics

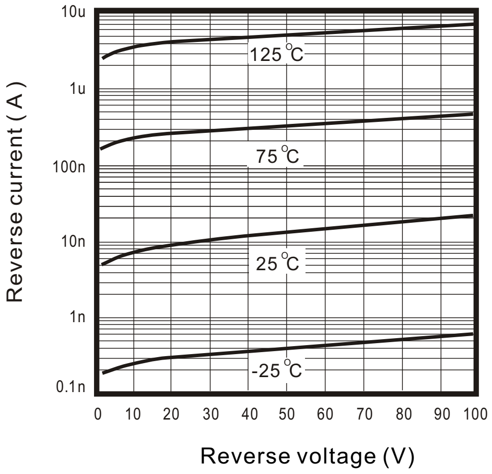


Fig. 3 - Capacitance between terminals characteristics

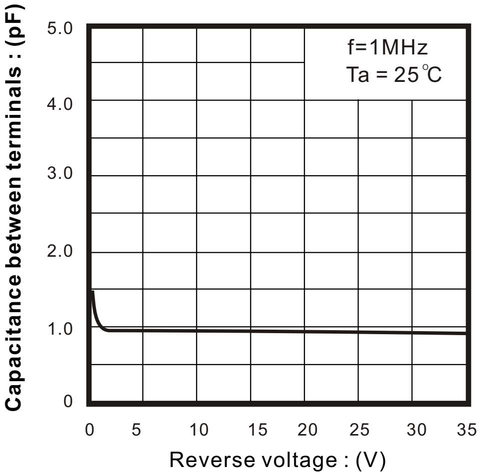


Fig. 4 - Current derating curve