

# SMD Switching Diode

## CDSF4148-B03 (Lead-free Device)

High Speed

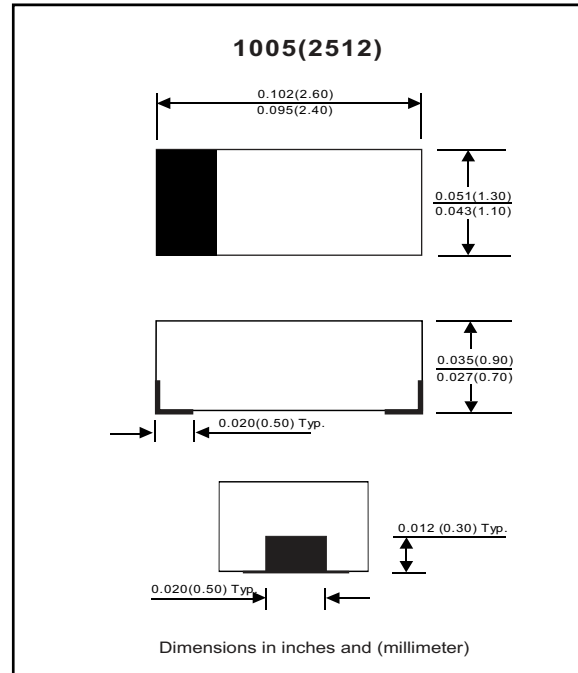


### Features

- Designed for mounting on small surface.
- Extremely thin/leadless package.
- High mounting capability, strong surge withstand, high reliability.

### 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 (approximately)



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>			100	V
Reverse voltage		V <sub>R</sub>			75	V
Average forward current		I <sub>o</sub>			150	mA
Forward current , surge peak	tp=1uS tp=1mS	I <sub>FSM</sub>		4 1		A
Repetitive peak forward current		I <sub>FRM</sub>			300	mA
Power Dissipation		P <sub>D</sub>			350	mW
Storage temperature		T <sub>STG</sub>	-40		+125	°C
Junction temperature		T <sub>j</sub>	-40		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> = 50 mADC	V <sub>F</sub>			1.0	V
Reverse current	V <sub>R</sub> = 20 V V <sub>R</sub> = 75 V	I <sub>R</sub>			25 2.5	nA uA
Capacitance between terminals	f = 1MHz, and 0 VDC reverse voltage	C <sub>T</sub>			4	pF
Reverse recovery time	I <sub>F</sub> = I <sub>R</sub> = 10 mA, R <sub>L</sub> = 100 ohms, i <sub>rr</sub> = 1mA	T <sub>rr</sub>			4	nS

## RATING AND CHARACTERISTIC CURVES (CDSF4148-B03)

Fig. 1 - Forward characteristics

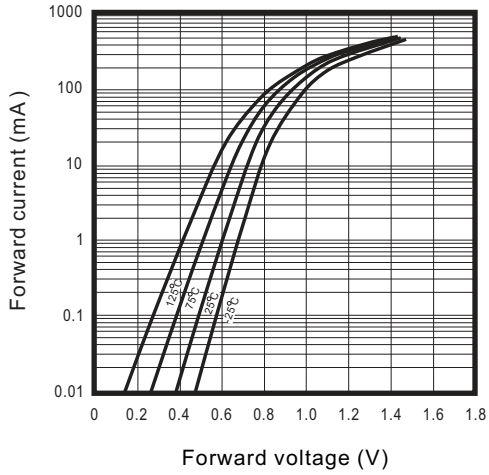


Fig. 2 - Reverse characteristics

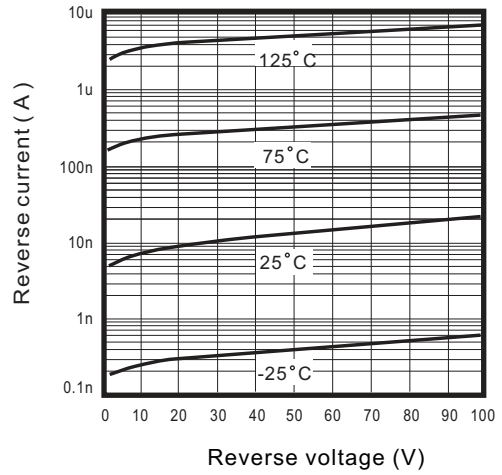


Fig. 3 - Capacitance between terminals characteristics

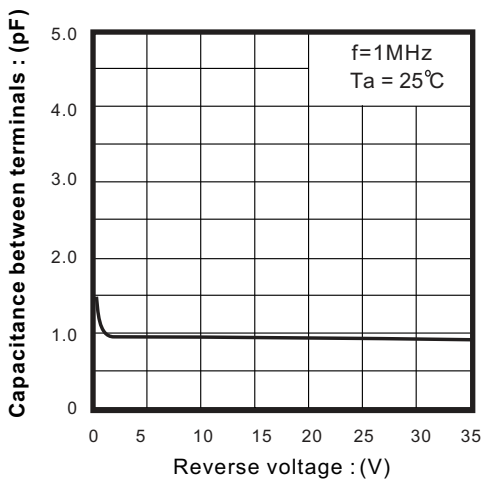


Fig. 4 - Current derating curve

