

RoHS Compliant Product

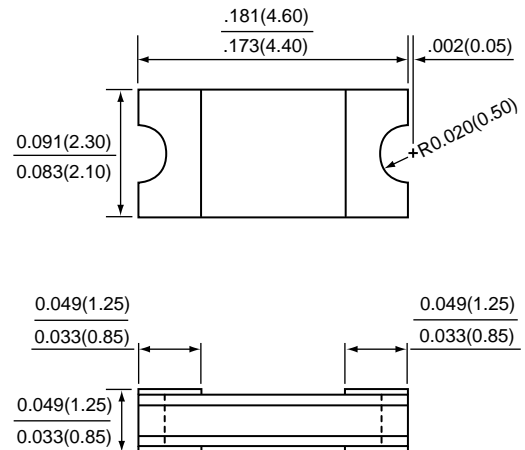
A suffix of "-C" specifies halogen & lead-free



**2010**

## FEATURES

- \* Plastic package has Underwriters Laboratory Flammability
- \* Classification 94V-0
- \* Low profile package
- \* Built-in strain relief
- \* Metal to silicon rectifier, majority carrier conduction
- \* Low power loss, High efficiency
- \* High current capability, low  $V_F$
- \* High surge capacity
- \* For using in low voltage high frequency switching power supply, inverters, free wheeling, and polarity protection applications



## MECHANICAL DATA

- \* Case : Packed with FRP substrate and epoxy underfilled
- \* Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity : Laser marking
- \* Weight : 0.02 gram

\* Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%.

TYPE NUMBER	SYMBOLS	SCD12L	SCD14L	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	V
Working Peak Reverse Voltage	$V_{RMS}$	20	40	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	V
Maximum Average Forward Rectified Current (See FIG. 1)	$I_{(AV)}$	1.0		A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30		A
Maximum Instantaneous Forward Voltage at 1.0A (Note1)	$V_F$	0.32	0.34	V
Maximum DC Reverse Current (Note1) $T_a=25$ at Rated DC Blocking Voltage $T_a=100$	$I_R$	1.0		mA
		80	50	
Typical Thermal Resistance (Note 2)	R $\theta$ JA	88		/ W
	R $\theta$ JL	28		
Operating Temperature Range	$T_J$	-50 ~ +125		
Storage Temperature Range	$T_{STG}$	-65 ~ +150		

### NOTES:

1. Pulse test width PW=300 usec, 1% duty cycle.
2. Mounted on P.C. board with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

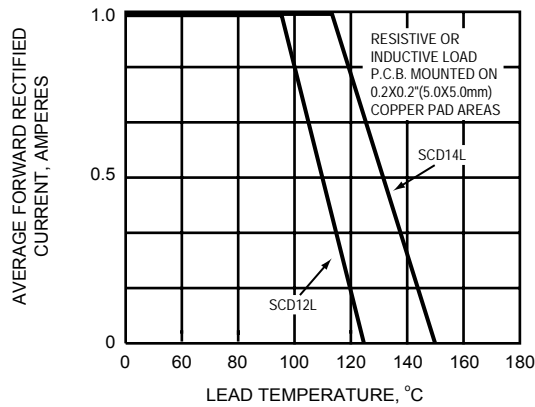


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

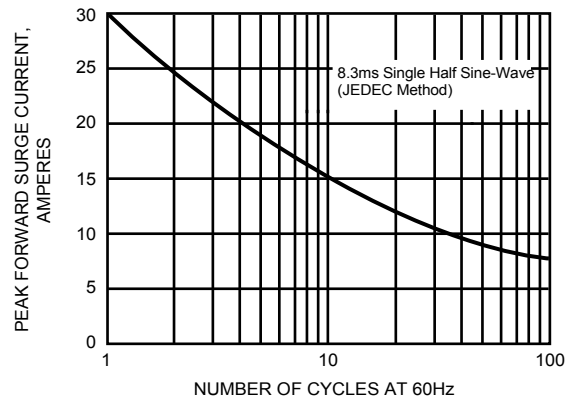


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

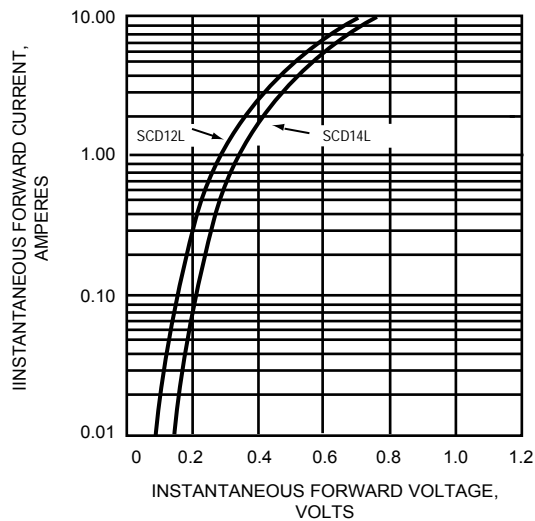


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

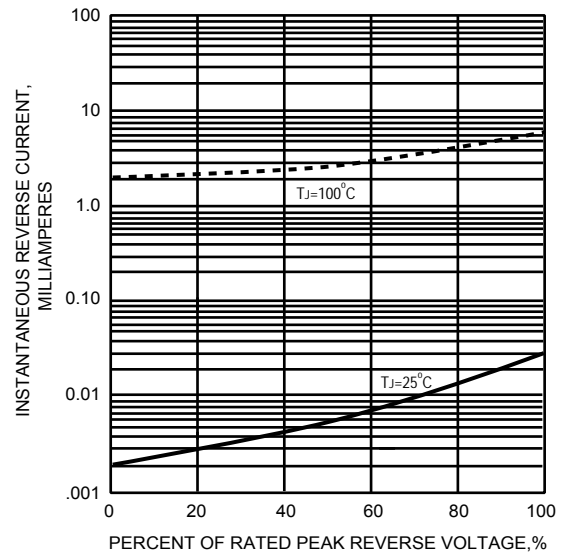


FIG.5 - TYPICAL JUNCTION CAPACITANCE

