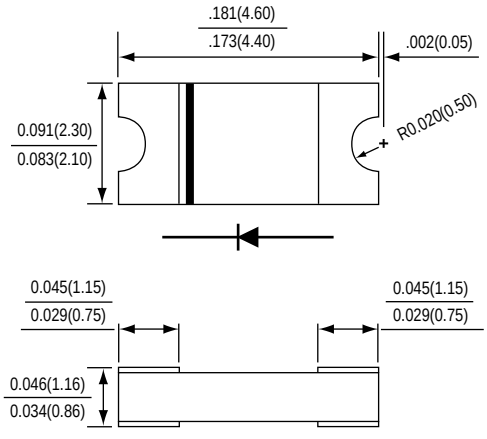
SCD12L THRU SCD14L

SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts *Forward Current - 1.0 Amperes*

PATENTED 2010



*Dimensions in inches and (millimeters)

SuperChip™



FEATURES

* Lead free product
* Leadless chip form , no lead damage
* Lead-free solder joint , no wire bond & lead frame
* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* For surface mounted applications
* Low profile package
* Built-in strain relief
* Metal to silicon rectifier , majority carrier conduction
* Low power loss , High efficiency
* High current capability , Super low VF drop
* 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 : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.
Polarity : Cathode Band, Laser marking
Weight : 0.02 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SCD12L***	***SCD14L***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	Volts
Maximum RMS voltage	V_{RMS}	14	28	Volts
Maximum DC blocking voltage	V_{DC}	20	40	Volts
Maximum average forward rectified current (SEE FIG.1)	$I_{(AV)}$	1 .0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30		Amps
Maximum instantaneous forward voltage at 1.0 A (NOTE 1)	V_F	0.38		Volts
Maximum DC reverse current (NOTE 1) @T_J=25°C	I_R	1.0		mA
at rated DC blocking voltage @T_J=80°C		30		
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	55 17		°C / W
Operating junction temperature range	T_J	-55 to +125		°C
Storage temperature range	T_{STG}	-55 to +150		°C

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.
(2) Mounted on P.C. board with 0.2 x 0.2"(5.0 x5.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES SCD12L THRU SCD14L

FIG.1 - FORWARD CURRENT DERATING CURVE

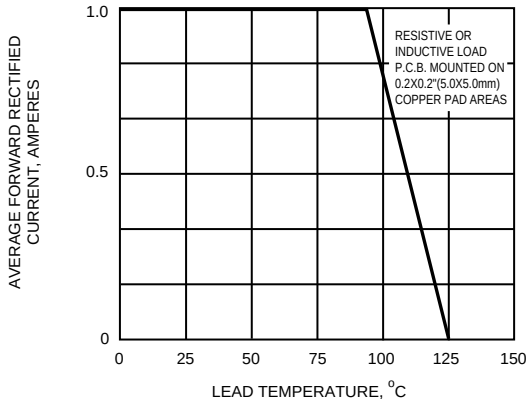


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

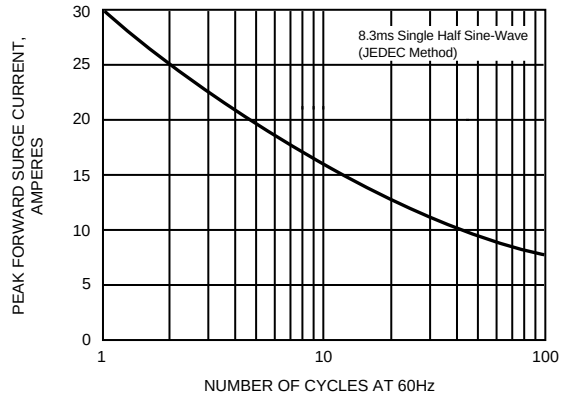


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

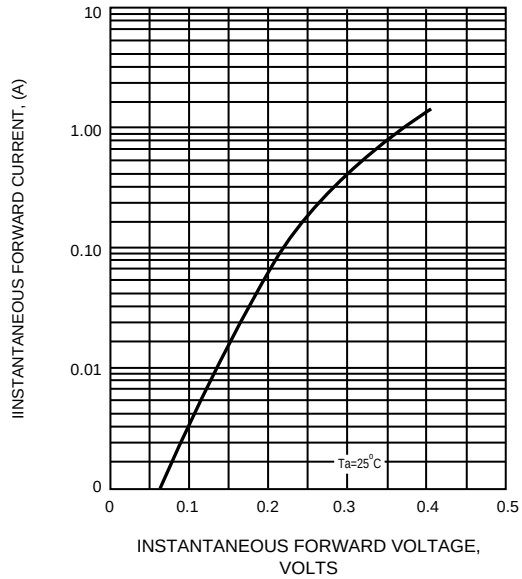


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

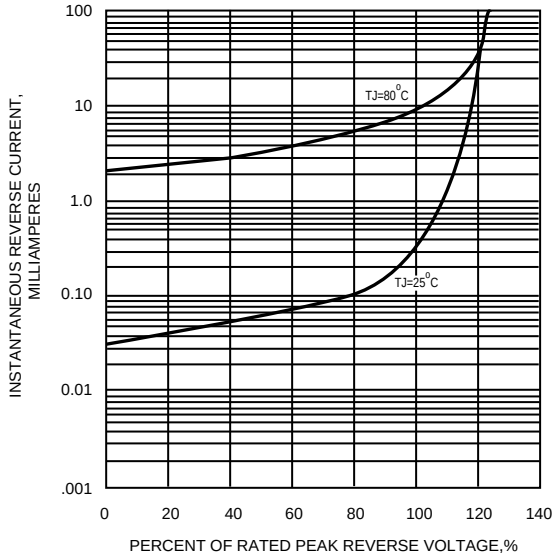


FIG.5 - TYPICAL JUNCTION CAPACITANCE

