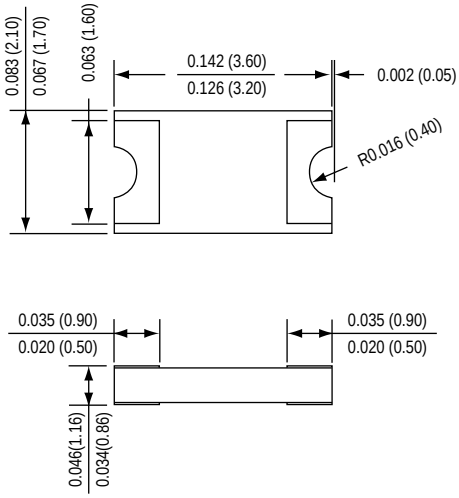
PRELIMINARY SSCD052 THRU SSCD054

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts *Forward Current - 500 mA*

PATENTED

1206



*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
* Low VF , High surge capability
* 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
* 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 : Laser marking
Weight : 0.012 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SSCD052***	***SSCD054***	*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)	$I_{(AV)}$	500		mA
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	15		Amps
Maximum instantaneous forward voltage at 0.5 A (NOTE 1)	V_F	0.42	0.48	Volts
Maximum DC reverse current (NOTE 1) @T_J=25°C	I_R	20		uA
at rated DC blocking voltage @T_J=100°C		10		mA
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	88 28		°C / W
Operating junction and Storage temperature range	T_J,T_{STG}	-55 to +125		°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 SSCD052 THRU SSCD054

FIG.1 - FORWARD CURRENT DERATING CURVE

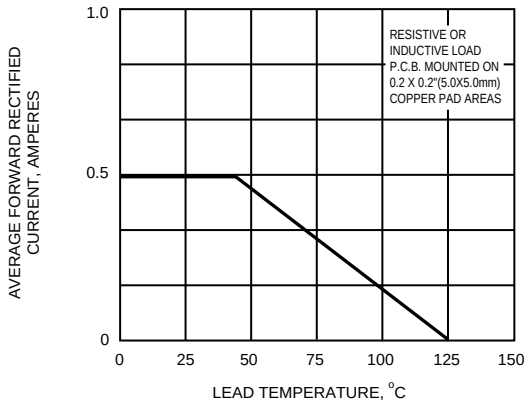


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

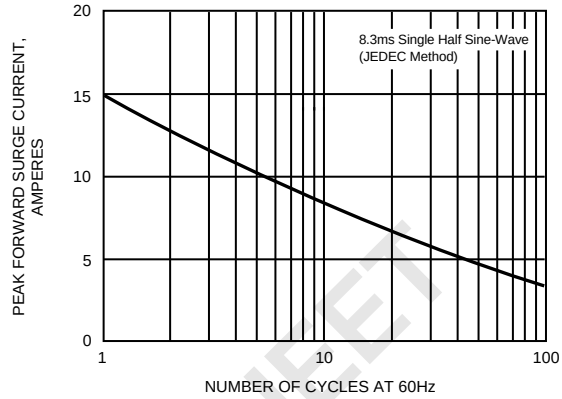


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

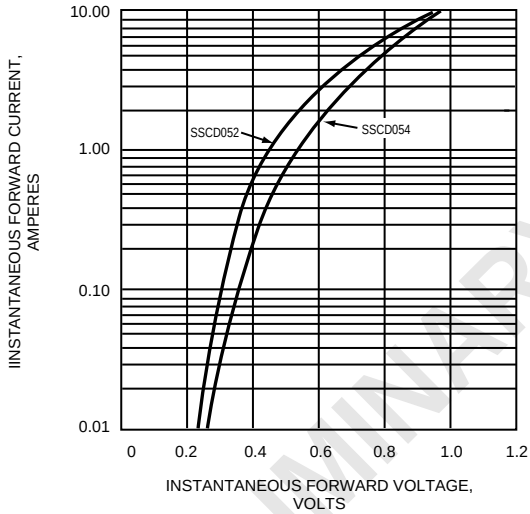


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

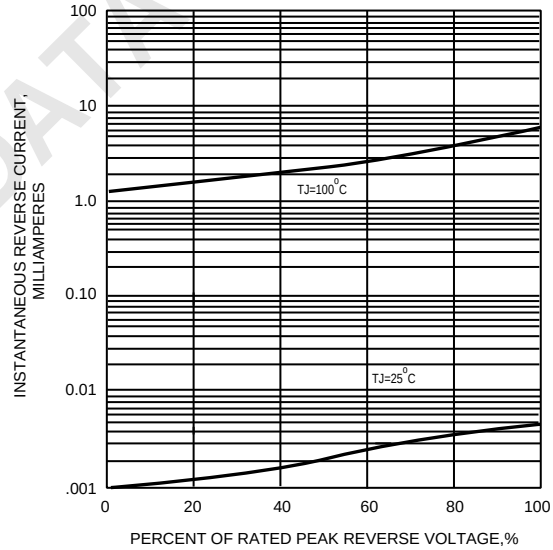


FIG.5 - TYPICAL JUNCTION CAPACITANCE