



PRELIMINARY SSCD052 THRU SSCD054

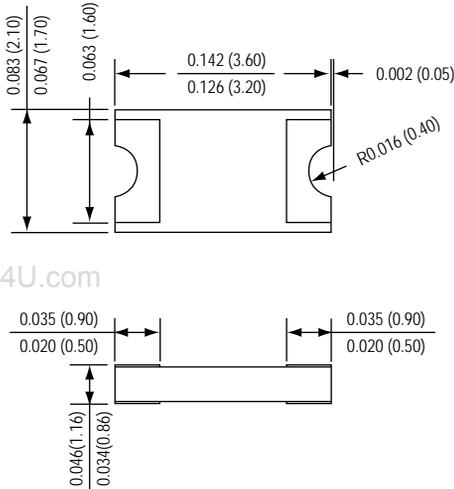
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts

Forward Current - 500 mA

PATENTED

1206



*Dimensions in inches and (millimeters)

SuperChipTM



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	VRRM	20	40	Volts
Maximum RMS voltage	VRMS	14	28	Volts
Maximum DC blocking voltage	VDC	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)	IFSM	15		Amps
Maximum instantaneous forward voltage at 0.5 A (NOTE 1)	VF	0.42	0.48	Volts
Maximum DC reverse current (NOTE 1) @T _J =25°C at rated DC blocking voltage @T _J =100°C	IR	20		uA
		10		mA
Typical thermal resistance (NOTE 2)	R θJA	88		°C / W
	R θJL	28		
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

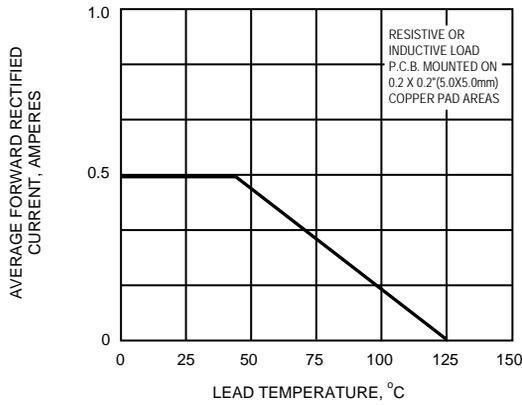


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

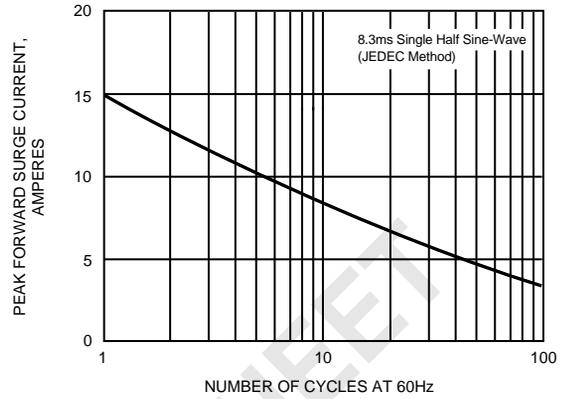


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

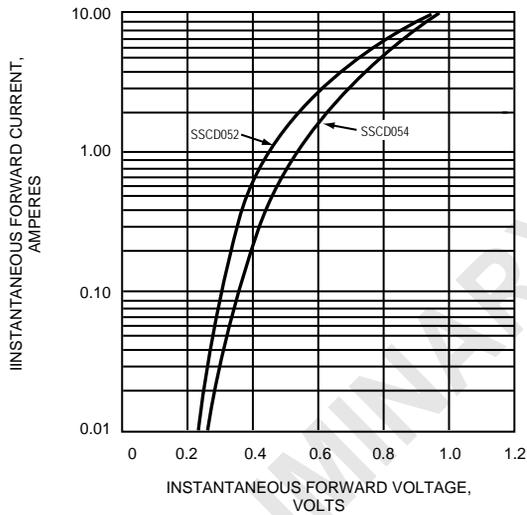


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

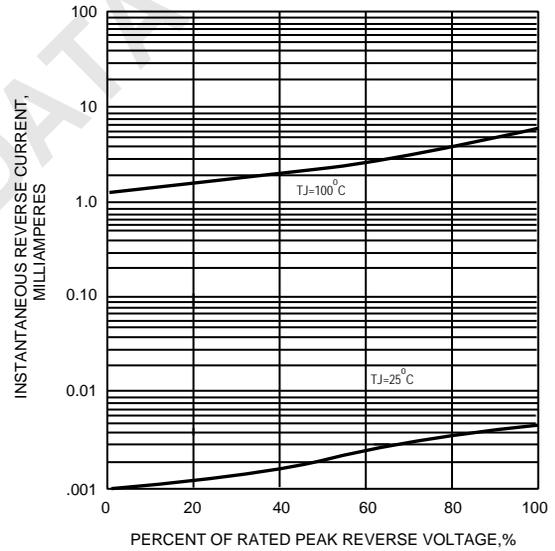


FIG.5 - TYPICAL JUNCTION CAPACITANCE

