



USCD012 THRU USCD014

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

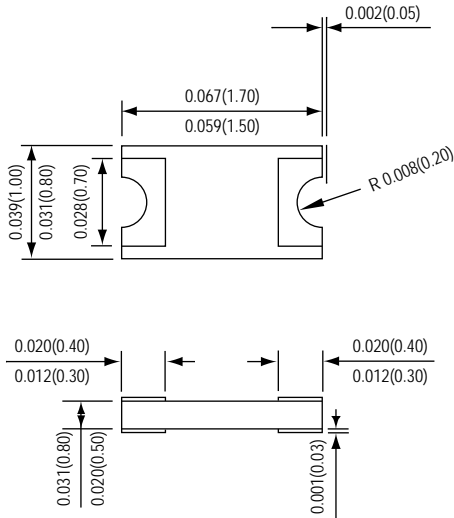
Reverse Voltage - 20 to 40 Volts

Forward Current - 100 mA

PATENTED

PRELIMINARY

0603



*Dimensions in inches and (millimeters)

SuperChipTM

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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 , low VF
- * 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 : Laser marking
Weight : 0.003 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	USCD012	USCD014	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
Average Forward Rectified Current	IO	100		mA
Peak Forward Surge Current at 8.3 ms single half sine-wave	IFSM	2.0		Amps
Maximum Instantaneous Forward Voltage at 0.1 A	VF	0.40		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	50		uA
Maximum DC Reverse Current at 10 V	IR	20		uA
Junction Temperature	TJ	+125		°C
Storage temperature range	TSTG	-40 to +125		°C

RATINGS AND CHARACTERISTIC CURVES USCD012 THRU USCD014

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

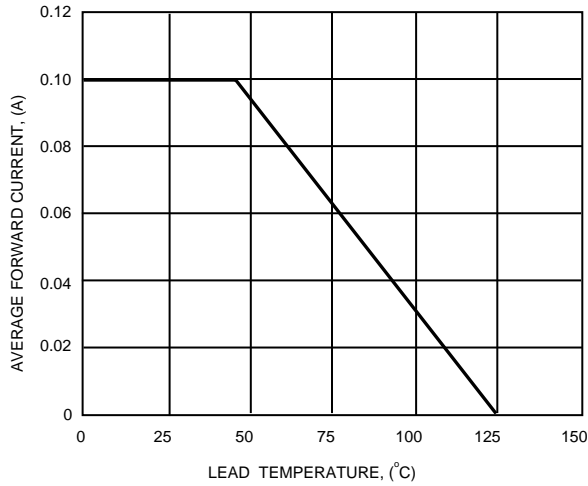


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

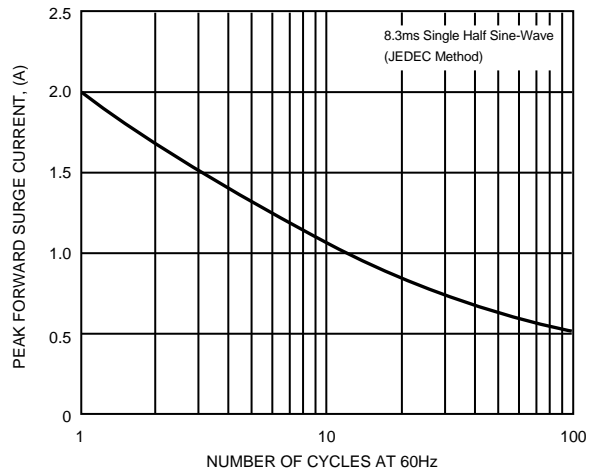


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

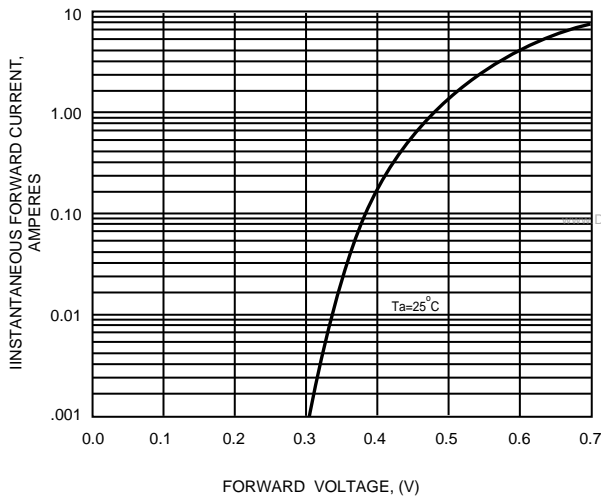


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

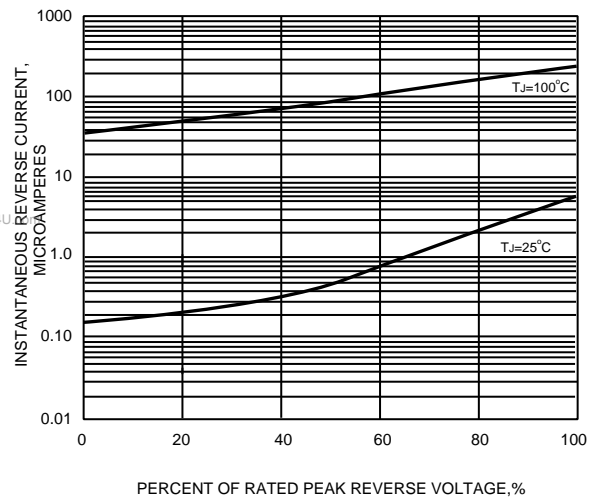


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

