



MSCD202 THRU MSCD204

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

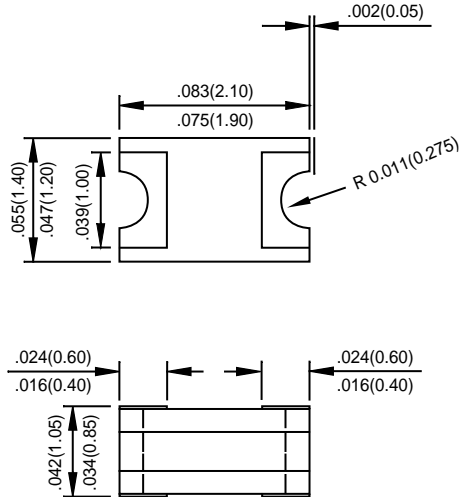
Reverse Voltage - 20 to 40 Volts

Forward Current - 2.0 Amperes

PATENTED

PRELIMINARY

0805



*Dimensions in inches and (millimeters)

SuperChipTM



FEATURES

- * 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 : Solder plated , solderable per MIL-STD-750, Method 2026

Polarity : Laser marking

Weight : 0.005 gram

Marking : MSCD202 = L2
 MSCD204 = L4

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.		SYMBOLS	MSCD202	MSCD204	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		Io	2.0		Amps
Peak forward surge current 8.3ms single half sine-wave		IFSM	10		Amps
Maximum instantaneous forward voltage at 1.0 A (NOTE 1)		VF	0.45	0.50	Volts
Maximum DC reverse current at 10 V (NOTE 1)	@T _J =25°C	IR	25		uA
	@T _J =100°C		500		
Typical thermal resistance (NOTE 2)	R θJA		88		°C / W
	R θJL		28		
Operating junction temperature range		TJ	150		°C
Storage temperature range		TSTG	-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 MSCD202 THRU MSCD204

FIG.1 - FORWARD CURRENT DERATING CURVE

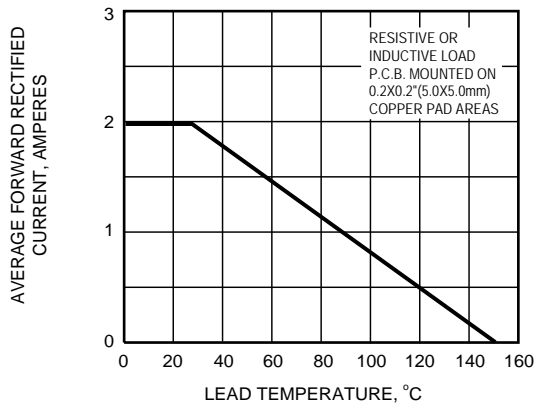


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

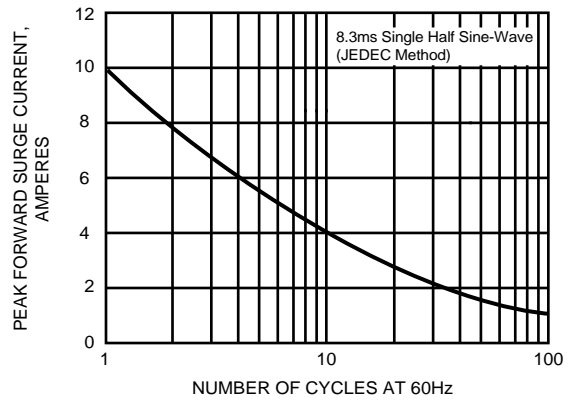


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

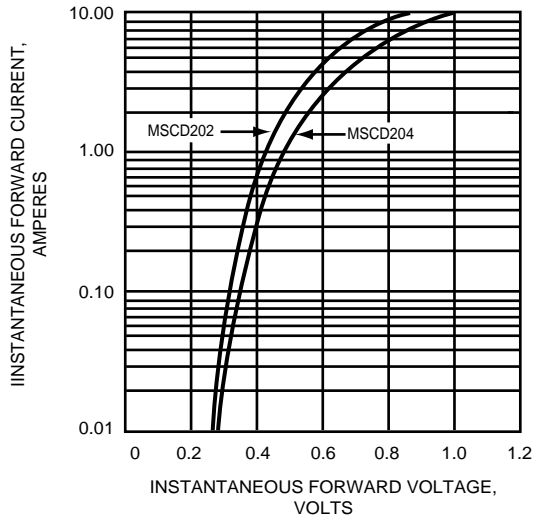


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

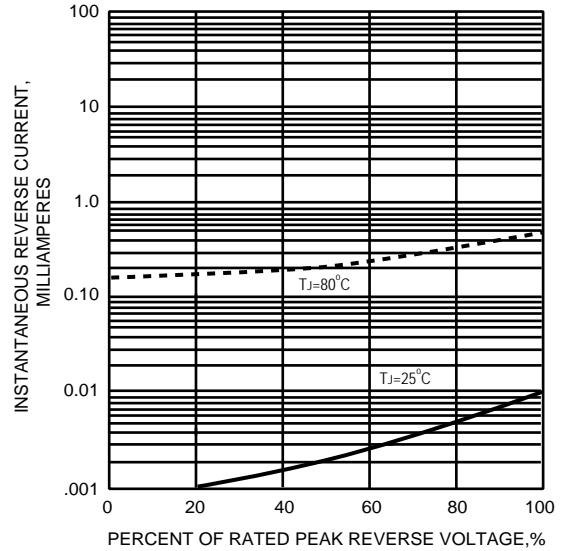


FIG.5 - TYPICAL JUNCTION CAPACITANCE

