

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

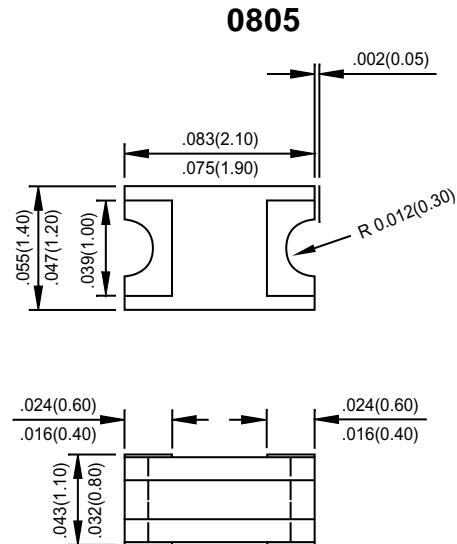


## FEATURES

- \* Plastic package has Underwriters Laboratory Flammability
- \* Classification 94V-0
- \* Low profile package
- \* Built-in strain relief
- \* Metal to silicon rectifier , majority carrier conduction
- \* Low power loss , High efficiency
- \* High current capability
- \* 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



\*Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%.

TYPE NUMBER	SYMBOLS	MSCD202	MSCD204	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	V
Working Peak Reverse Voltage	$V_{RMS}$	20	40	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	V
Maximum Average Forward Rectified Current (See FIG. 1)	$I_{(AV)}$	2.0		A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	10		A
Maximum Instantaneous Forward Voltage at 2.0A (Note1)	$V_F$	0.45	0.50	V
Maximum DC Reverse Current (Note1) $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	$I_R$	0.1		mA
		5		
Typical Thermal Resistance (Note 2)	R $\theta$ JA	88		°C / W
	R $\theta$ JL	28		
Operating Temperature Range	$T_J$	-50 ~ +125		°C
Storage Temperature Range	$T_{STG}$	-65 ~ +150		°C

### NOTES:

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

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

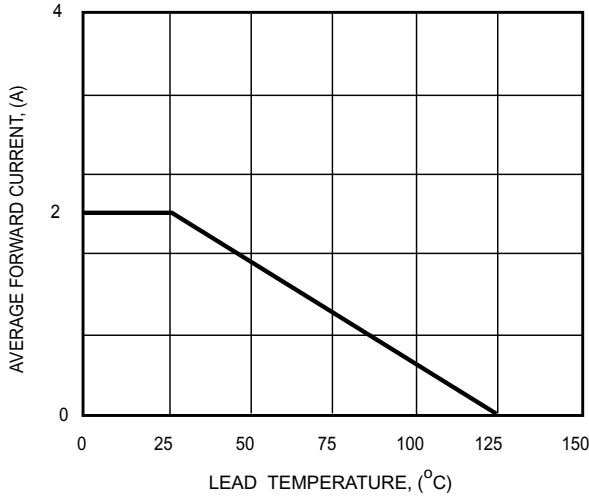


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

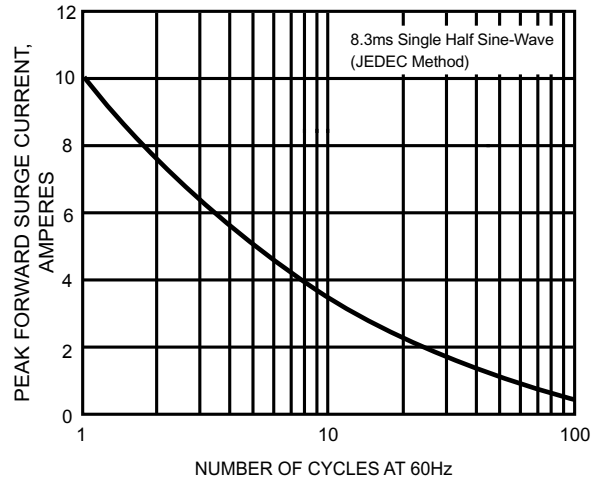


FIG. 3 - FORWARD CHARACTERISTICS

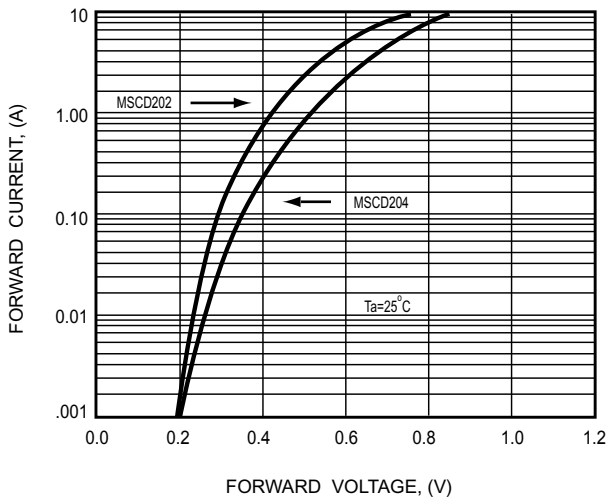


FIG. 4 - REVERSE CHARACTERISTICS

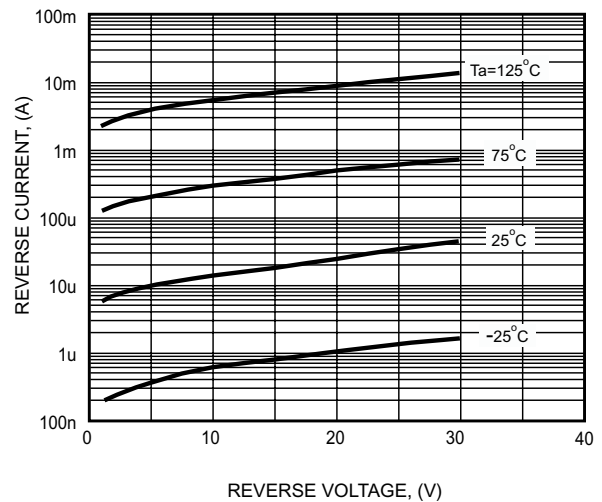


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

