Elektronische Bauelemente

MSCD104

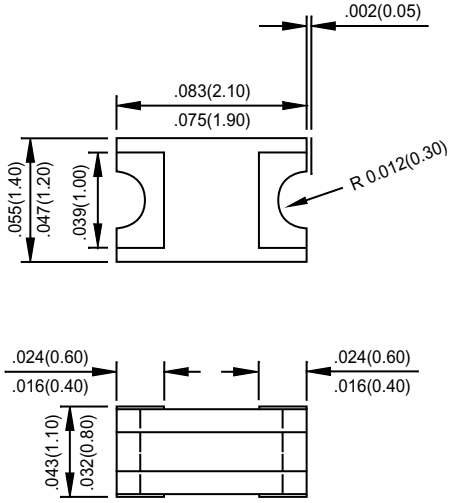
VOLTAGE 40V

1 AMP Surface Mount Schottky Barrier Rectifiers

RoHS Compliant Product

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

0805



*Dimensions in inches and (millimeters)

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
* Polarit y : Laser marking
* Weight : 0.005 gram
* Marking: MSCD104 = A4

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SYMBOLS	MSCD104	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RMS}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current (See FIG. 1)	$I_{(AV)}$	1	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	3	A
Maximum Instantaneous Forward Voltage at 1.0A (Note1)	V_F	0.52	V
Maximum DC Reverse Current (Note1) Ta=25	I_R	0.1	mA
at Rated DC Blocking Voltage Ta=100		5	
Typical Thermal Resistance (Note 2)	RθJA	88	℃ / W
	RθJL	28	
Operating Temperature Range	T_J	-50 ~ +125	℃
Storage Temperature Range	T_{STG}	-65 ~ +150	℃

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.

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

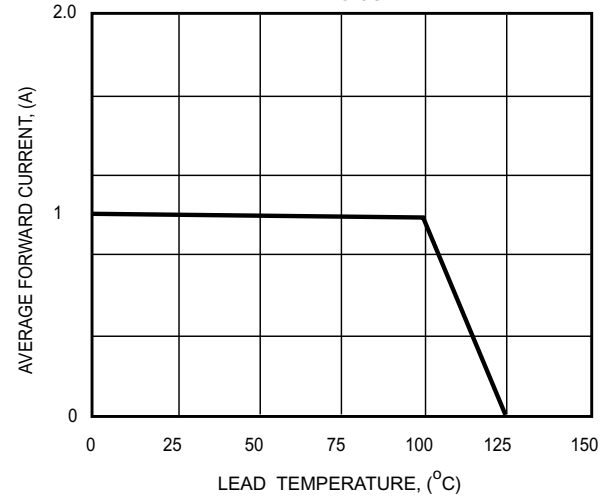

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

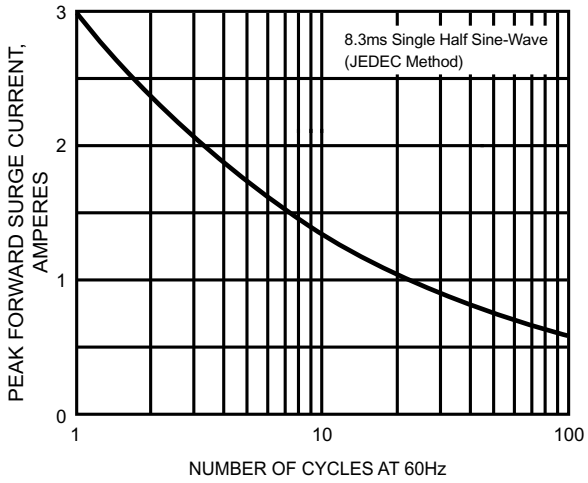

FIG. 3 - FORWARD CHARACTERISTICS

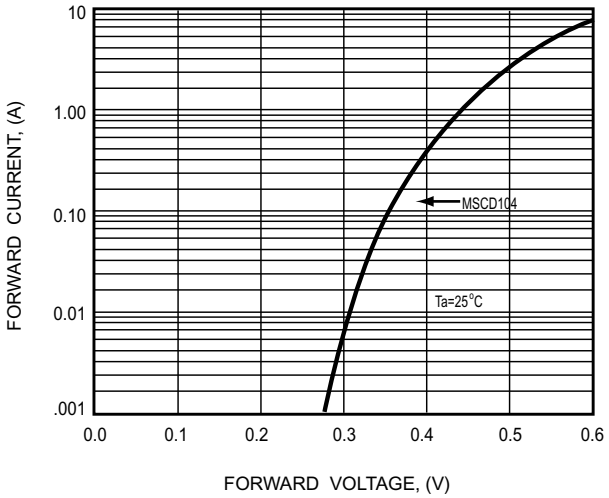

FIG. 4 - REVERSE CHARACTERISTICS

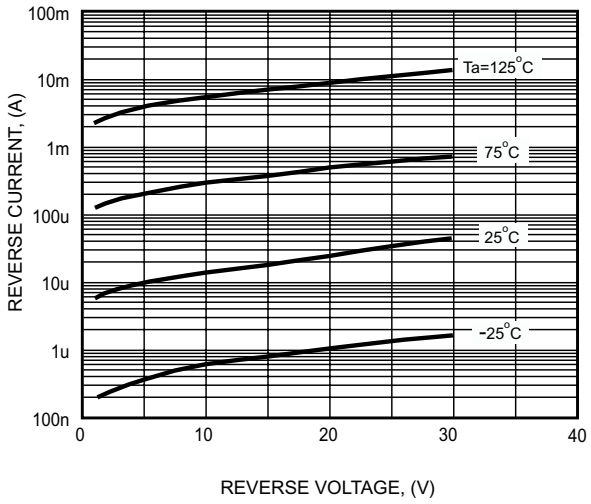

FIG. 5 - TYPICAL JUNCTION CAPACITANCE