

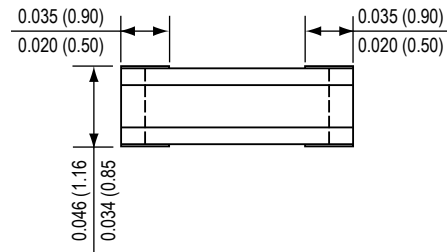
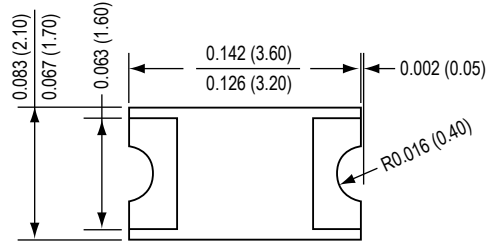
A suffix of "-C" indicates halogen-free & RoHS Compliant



1206 (SOD-123)

## 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
- RoHS Compliant Product



Dimensions in inches and (millimeters)

## MECHANICAL DATA

**Case** : Packed with FRP substrate and epoxy underfilled

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

**Polarity** : Laser marking

**Weight** : 0.02 gram

## 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	SCDF103	SCDF104	SCDF105	SCDF106	SCDF107	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RMS}$	200	400	600	800	1000	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.3					V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=125^\circ\text{C}$	$I_R$	1 30					$\mu\text{A}$
Maximum reverse recovery time	$T_{rr}$	250			300		nS
Typical Junction Capacitance (Note 1.)	$C_j$	15					pF
Operating Temperature Range	$T_J$	-50 ~ +125					°C
Storage Temperature Range	$T_{STG}$	-65 ~ +150					°C

### NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Marking:

- SCDF103 : 37ZD
- SCDF104 : 37ZG
- SCDF105 : 37ZJ
- SCDF106 : 37ZK
- SCDF107 : 37ZM

FIG.1 - FORWARD CURRENT DERATING CURVE

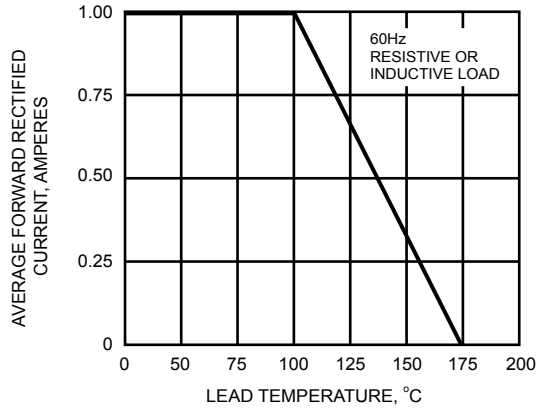


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

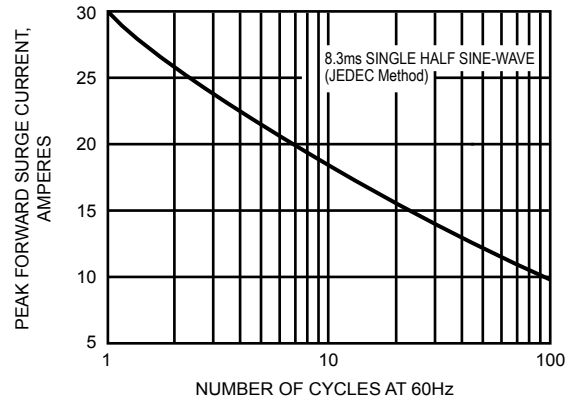


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

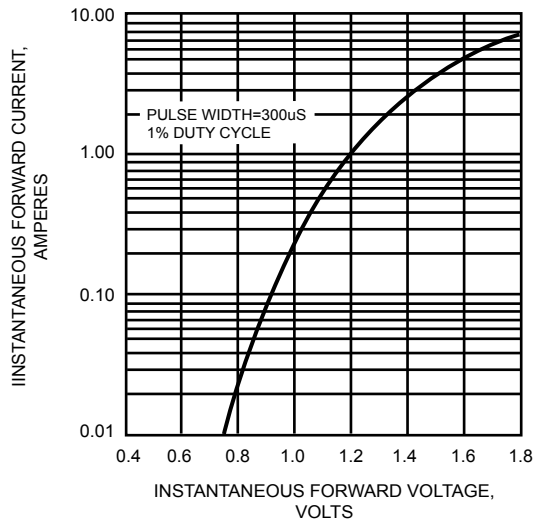


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

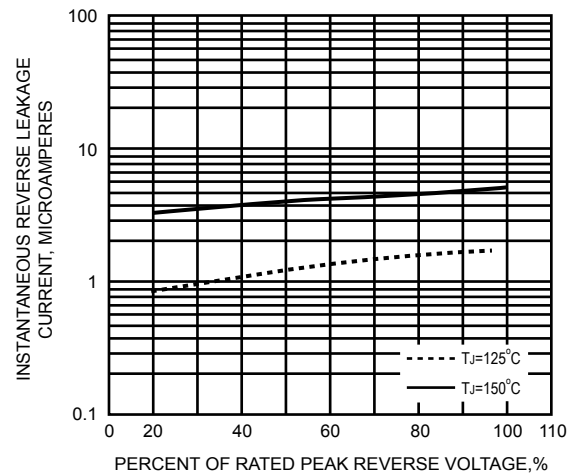


FIG.5 - TYPICAL JUNCTION CAPACITANCE

