

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

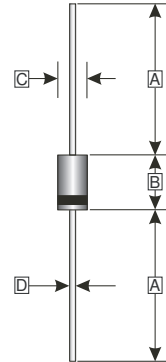
## FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

## MECHANICAL DATA

- Glass Passivated
- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

DO-27



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	7.20	9.53
C	5.00	5.60
D	1.20	1.32

## ORDER INFORMATION

Part Number	Type
FR501G~FR507G	Lead (Pb)-free
FR501G~FR507G-C	Lead (Pb)-free and Halogen-free

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Parameters	Symbol	Part Numbers							Units
		FR501G	FR502G	FR503G	FR504G	FR505G	FR506G	FR507G	
Maximum Repetitive Peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>F</sub>	5							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load	I <sub>FSM</sub>	100							A
Maximum Instantaneous Forward Voltage @ I <sub>F</sub> =5A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>C</sub> =25°C	10							uA
	T <sub>C</sub> =100°C	200							
Typical Junction Capacitance <sup>1</sup>	C <sub>J</sub>	80							pF
Reverse Recovery Time <sup>2</sup>	T <sub>RR</sub>	150			250	500		nS	
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 ~ 150							°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A.

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

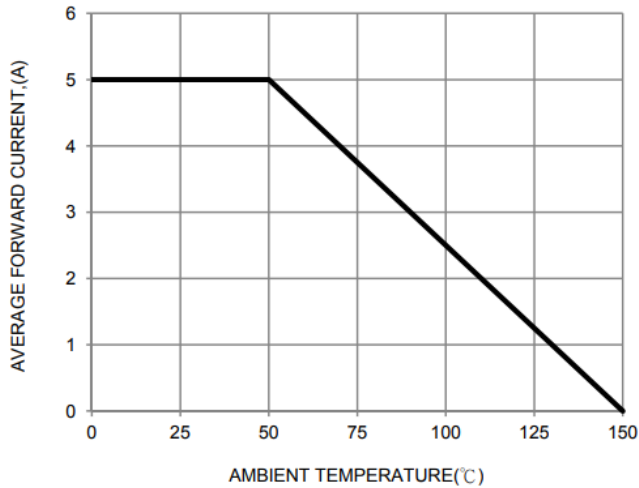


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

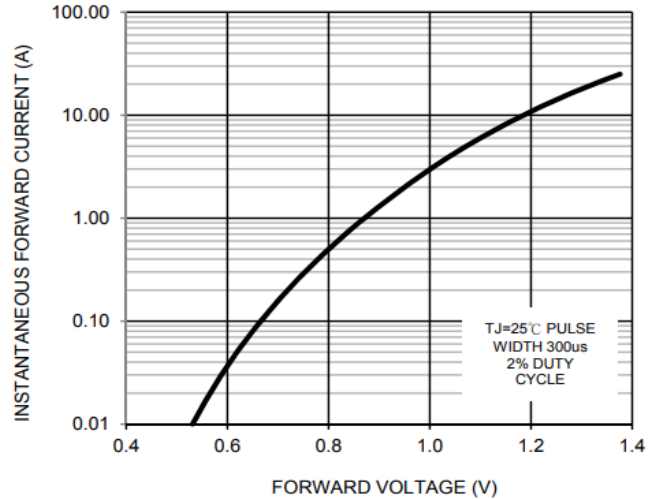


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

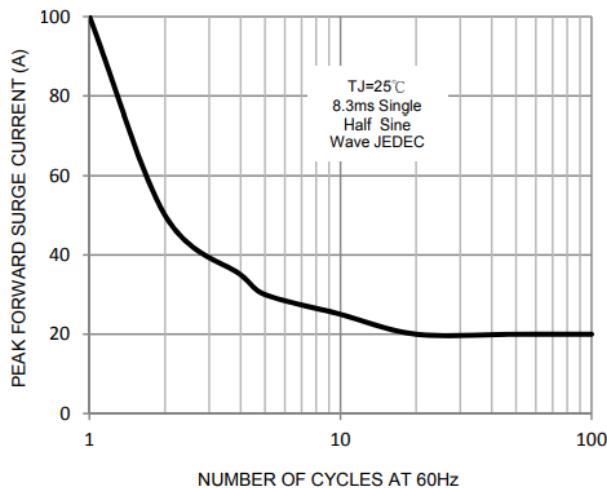


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

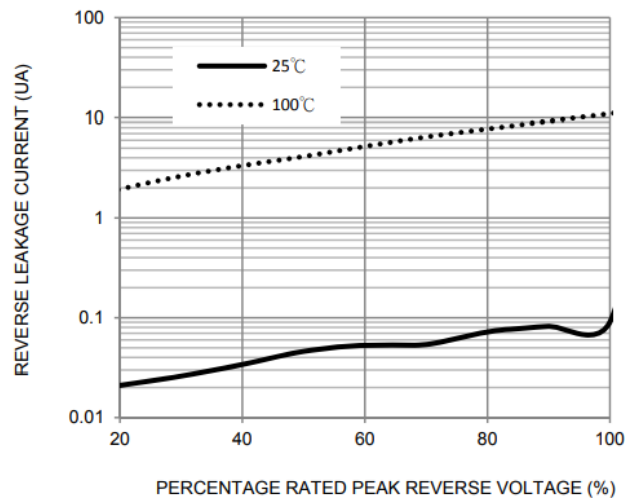


FIG. 5-TYPICAL JUNCTION CAPACITANCE

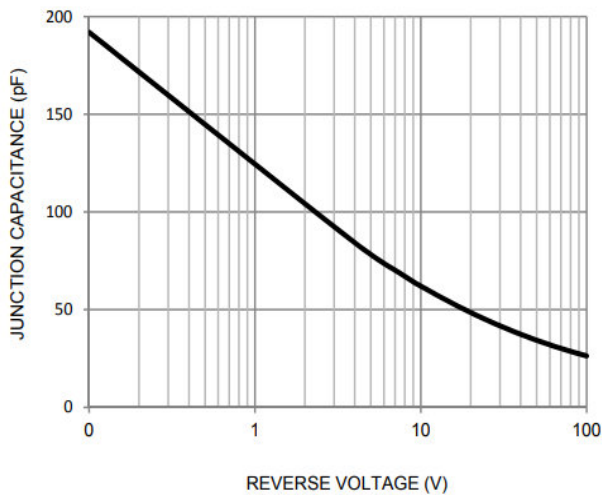


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

