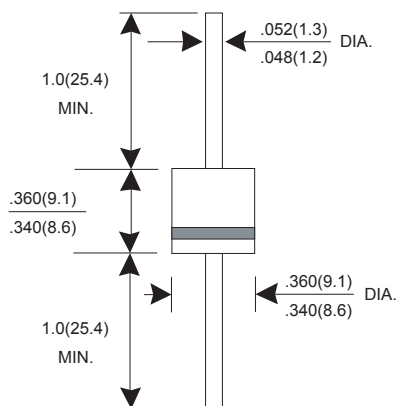
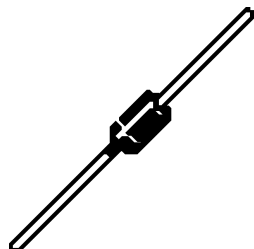


Mechanical Dimensions

Description

FR50~510G



R-6

Dimensions in inches and (millimeters)

Features

- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability
- ★ Weight: 2.1 grams

Mechanical Data

- ★ Case: Molded plastic P600
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	FR 50G	FR 51G	FR 52G	FR 54G	FR 56G	FR 58G	FR 510G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current TL=55°C	IF(AV)	5.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	250							A
Maximum Instantaneous Forward Voltage @ 6.0 A	VF	1.3							V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	5.0 200							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	150			250	500		nS	
Typical junction Capacitance (Note 2)	CJ	100							pF
Typical Thermal Resistance (Note 3)	RθJA	55							°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150							°C

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to lead.

RATINGS AND CHARACTERISTIC CURVES FR50G THRU FR510G

FIG.1 - FORWARD CURRENT DERATING CURVE

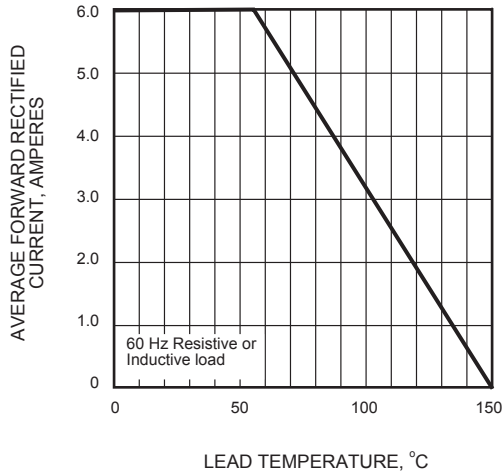


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

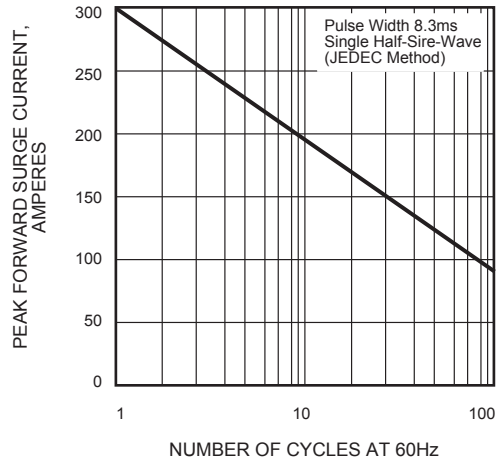


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

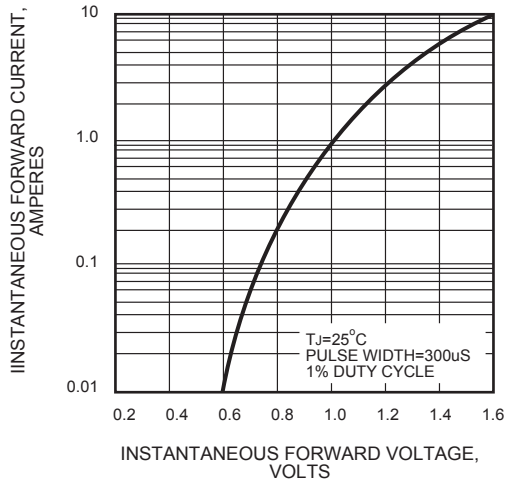


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

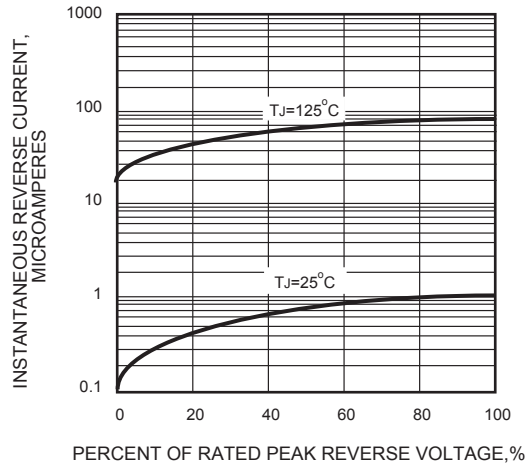


FIG.5 - TYPICAL JUNCTION CAPACITANCE

