

Glass Passivated Fast Recovery Rectifier

COMCHIP
SMD DIODE SPECIALIST

FR8A01-G THRU FR8A07-G

Voltage Range 50 to 1000 V

Current 8.0 Ampere

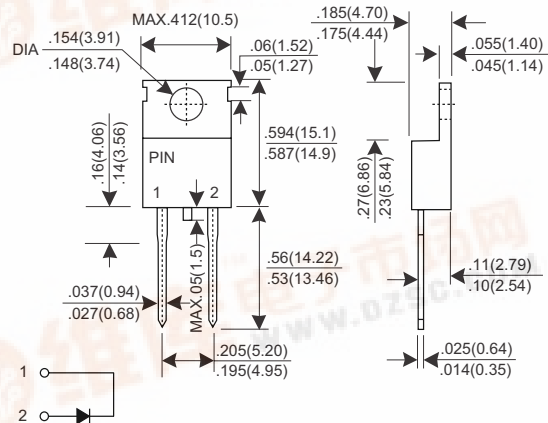
Features

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

Mechanical Data

- ★ Case: Molded plastic TO-220AC
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any
- ★ Weight: 2.03 grams

TO-220AC



Dimensions in inches and (millimeters)

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 8A01-G	FR 8A02-G	FR 8A03-G	FR 8A04-G	FR 8A05-G	FR 8A06-G	FR 8A07-G	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 Tc=100°C	IF(AV)	8.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	150							A
Maximum Instantaneous Forward Voltage @ 8.0 A	VF	1.3							V
Maximum DC Reverse Current @TJ=25°C	IR	10.0							uA
At Rated DC Blocking Voltage @TJ=125°C		250							uA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		nS
Typical junction Capacitance (Note 2)	CJ	65							pF
Typical Thermal Resistance (Note 3)	RθJC	2.2							°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 case.



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RATINGS AND CHARACTERISTIC CURVES FR8A01-G THRU FR8A07-G

FIG.1 - FORWARD CURRENT DERATING CURVE

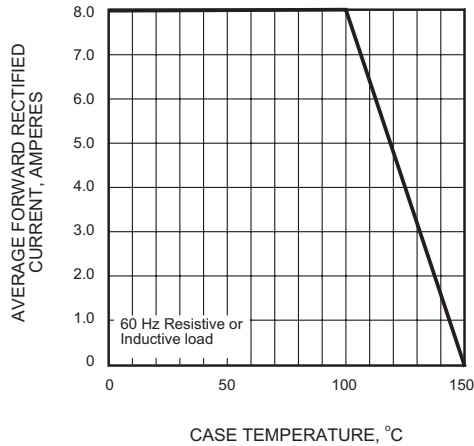


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

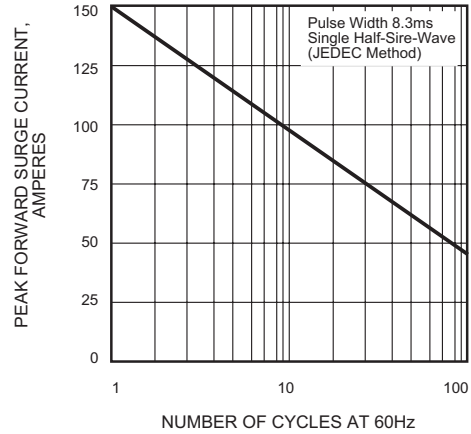


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

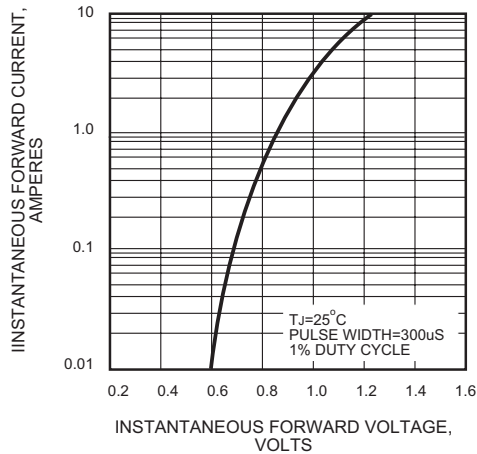


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

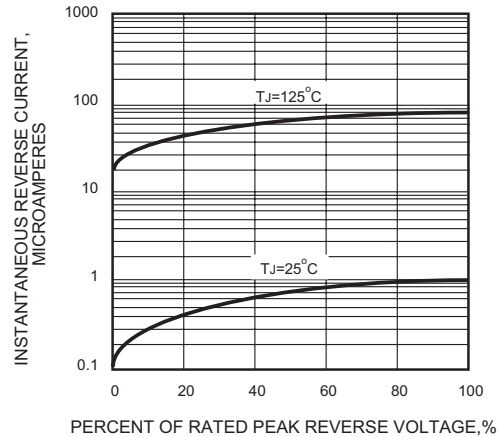


FIG.5 - TYPICAL JUNCTION CAPACITANCE

