

8 AMP FAST RECOVERY RECTIFIERS

FEATURES

- Glass Passivated for high reliability/temperature performance
- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High surge current capability
- Fast switching for high efficiency
- Low leakage

RoHS COMPLIANT

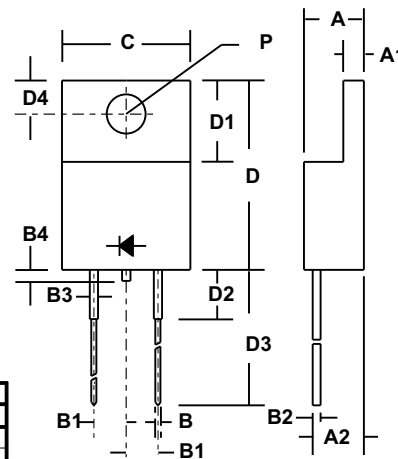
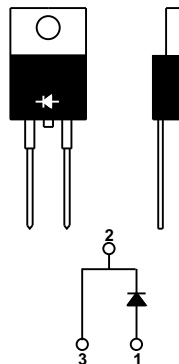
MECHANICAL DATA

- Case: TO-220 molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated rectangular pins
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.07 Ounces (2.05 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
TO-220AC PACKAGE

SERIES RGP800 - RGP806



TO - 220AC

Sym	Minimum		Maximum	
	in	mm	in	mm
A	0.121*	4.75*	0.187	4.75
A1	0.14*	3.56*		
B	0.035	0.9	0.043	1.1
B1	0.09	2.3	0.102	2.6
B2	0.025*	0.64*		
B3	0.050*	1.27*		
B4			0.04	1.0
C			0.413	10.5
D	0.59	15.0	0.61	15.5
D1	0.262*	6.6*		
D2			0.16	4.0
D3	0.54	13.7	0.60	15.2
D4	0.108*	2.75*		
P	0.126*	3.2*		

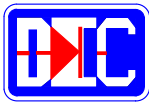
* These dimensions are "Typicals".

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
Series Number		RGP800	RGP801	RGP802	RGP804	RGP806	
Maximum DC Blocking Voltage	V _{RM}	50	100	200	400	600	VOLTS
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	400	600	
Average Forward Rectified Current @ T _c = 110 °C	I _o	8					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	150					
Maximum Forward Voltage at 8 Amps DC	V _{FM}	1.3					VOLTS
Maximum Average DC Reverse Current @ T _c = 25 °C At Rated DC Blocking Voltage @ T _c = 100 °C	I _{RM}	10 250					μA
Typical Thermal Resistance, Junction to Case	R _{θJC}	3					°C/W
Typical Junction Capacitance (Note 1)	C _J	55					pF
Maximum Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)	T _{RR}	150			200	250	nSec
Junction Operating and Storage Temperature Range	T _J , T _{STG}	-50 to +150					°C

NOTES: (1) Measured at 1MHz and an applied reverse voltage of 4 volts.



8 AMP FAST RECOVERY DIODES

RATING & CHARACTERISTIC CURVES FOR SERIES RGP800 - RGP806

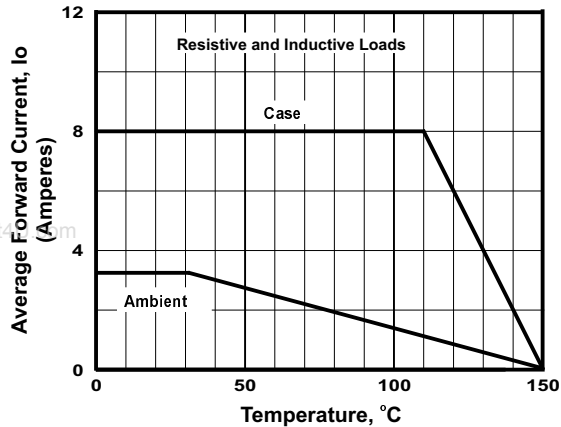


FIGURE 1. FORWARD CURRENT DERATING CURVE

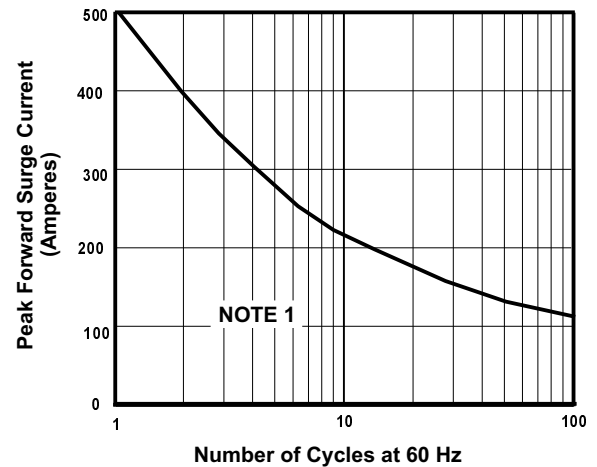


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

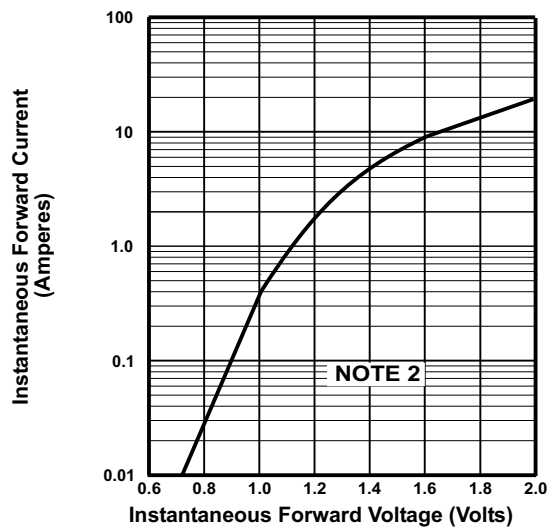


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

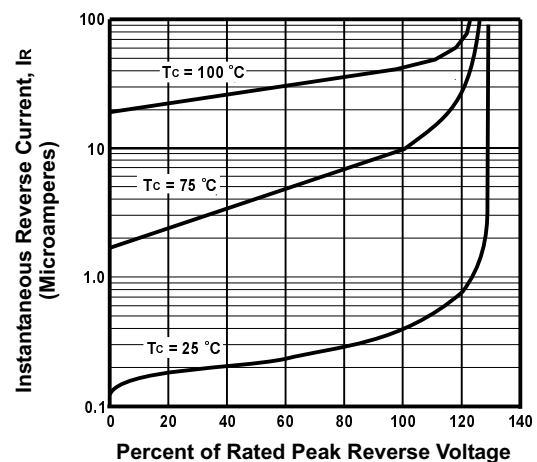


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

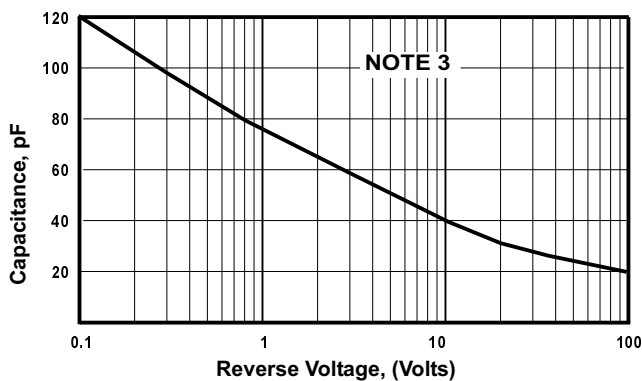


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

- (1) JEDEC Method, 8.3 mSec. Single Half Sine Wave, $T_J = 150^\circ\text{C}$
- (2) $T_J = 25^\circ\text{C}$, Pulse Width = 300 μSec , 2.0% Duty Cycle
- (3) $T_J = 25^\circ\text{C}$, $f = 1\text{ MHz}$