

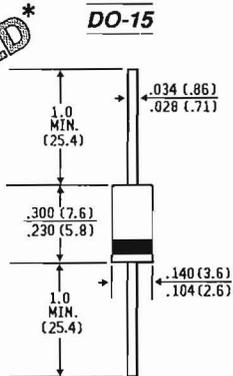
RGP15A THRU RGP15M

GLASS PASSIVATED JUNCTION FAST SWITCHING PLASTIC RECTIFIER

Voltage - 50 to 1000 Volts Current - 1.5 Ampere

FEATURES

PATENTED*



Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976 and brazed-lead assembly by Patent No. 3,930,306 of 1976

- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated cavity-free junction in DO-15 package
- ◆ 1.5 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.1 \mu\text{A}$
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds/.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-15 Molded plastic over glass
Terminals: Plated Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode
Mounting Position: Any
Weight: 0.015 ounce, 0.4 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.
 For capacitive load, derate current by 20%.

	SYMBOLS	RGP								UNITS
		15A	15B	15D	15G	15J	15K	15M		
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000		Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700		Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000		Volts
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths at $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.5								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0								Amps
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.3								Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	I_R	200.0								μA
Maximum Full Load Reverse Current, Full Cycle Average .375", (9.5mm) Lead Length $T_A=55^\circ\text{C}$	$I_{R(AV)}$	100.0								μA
Maximum Reverse Recovery Time (NOTE 2) $T_J=25^\circ\text{C}$	T_{RR}	150			250		500			nS
Typical Junction Capacitance (NOTE 2)	C_J	25.0								pf
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	30.0								$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175								$^\circ\text{C}$

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
 2. Reverse Recovery Test Conditions: $I_F=5A$, $I_R=1A$, $I_{rr}=25A$.
 3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATINGS AND CHARACTERISTIC CURVES RGP15A THRU RGP15M

FIG. 1— REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

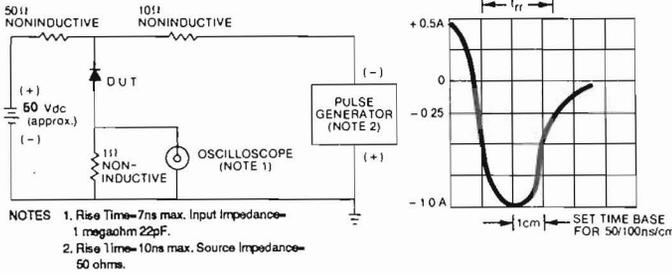


FIG. 2— FORWARD CURRENT DERATING CURVE

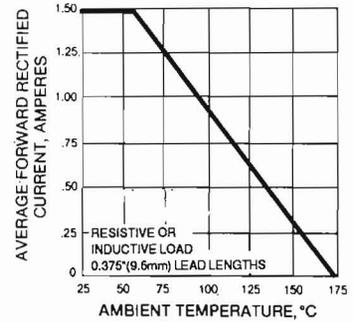


FIG. 3— TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

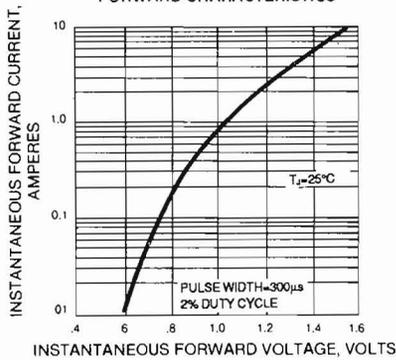


FIG. 4— TYPICAL JUNCTION CAPACITANCE

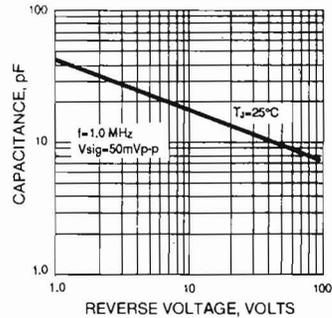


FIG. 5 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

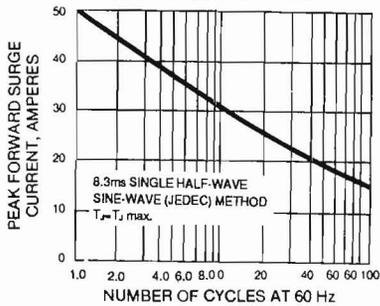


FIG. 6 — SUPERRECTIFIER

