

# GP15A - GP15M

# GLASS PASSIVATED JUNCTION SILICON RECTIFIERS

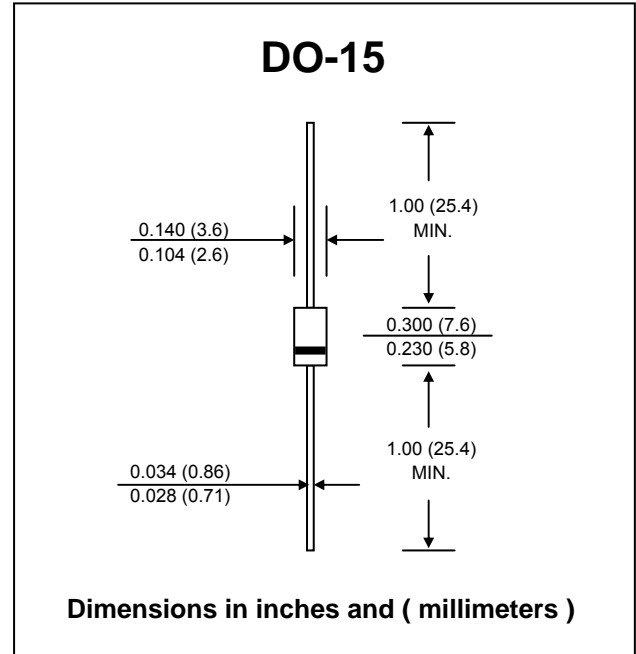
**PRV : 50 - 1000 Volts**  
**Io : 1.5 Amperes**

**FEATURES :**

- \* Glass passivated junction chip
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : DO-15 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.4 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

RATING	SYMBOL	GP 15A	GP 15B	GP 15D	GP 15G	GP 15J	GP 15K	GP 15M	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum Peak Forward Voltage at $I_F = 1.5\text{ A}$	$V_F$	1.1							V
Maximum Full load Reverse Current, Full Cycle Average 0.375",(9.5mm) Lead Length $T_a = 55\text{ }^\circ\text{C}$	$I_{R(AV)}$	100							$\mu\text{A}$
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 150\text{ }^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
	$I_{R(H)}$	200							$\mu\text{A}$
Typical Reverse Recovery Time ( Note 1 )	$T_{rr}$	2.0							$\mu\text{s}$
Typical Junction Capacitance ( Note 2 )	$C_J$	15							pF
Typical Thermal Resistance ( Note 3 )	$R_{\theta JA}$	25							$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	- 65 to + 175							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175							$^\circ\text{C}$

**Notes :**

- ( 1 ) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc
- ( 3 ) Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES ( GP15A - GP15M )

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

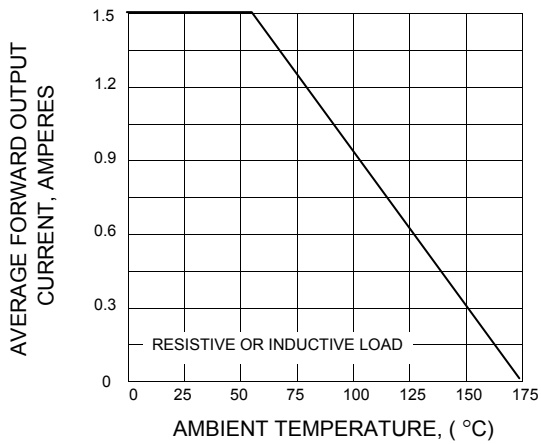


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

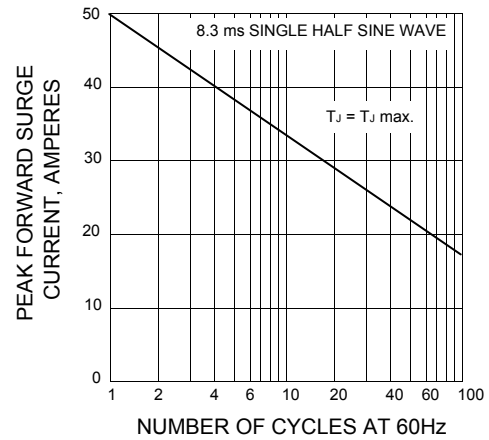


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

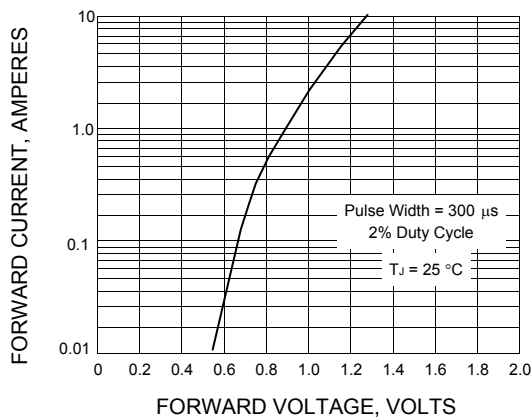


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

