

GP15A - GP15M

PRV : 50 - 1000 Volts
Io : 1.5 Amperes

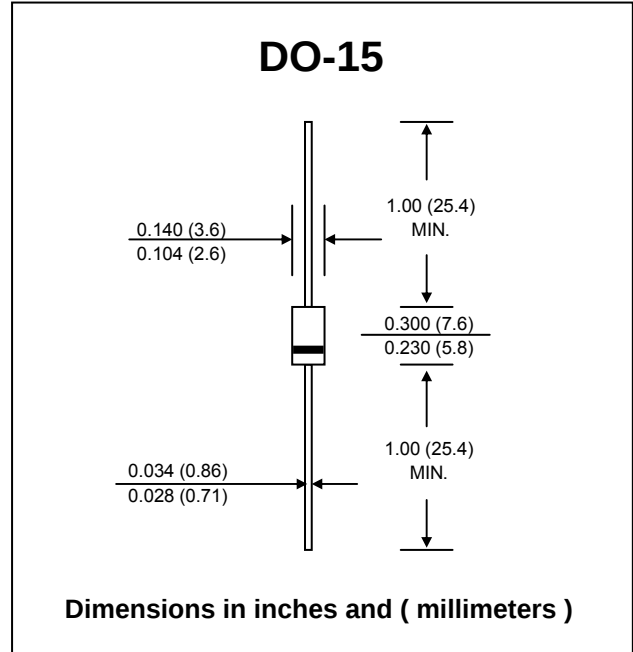
FEATURES :

- * 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

SILICON RECTIFIER DIODES



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 $T_a = 55^\circ\text{C}$	$I_{F(AV)}$	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 $T_a = 55^\circ\text{C}$	$I_{R(AV)}$	100							μA
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 150^\circ\text{C}$	I_R	5.0							μA
	$I_{R(H)}$	200							μA
Typical Reverse Recovery Time (Note 1)	T_{rr}	2.0							μs
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

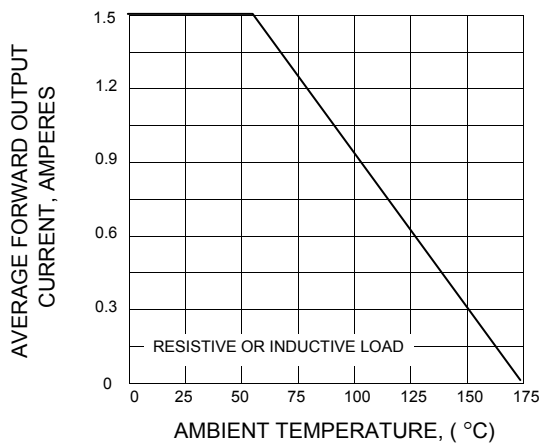


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

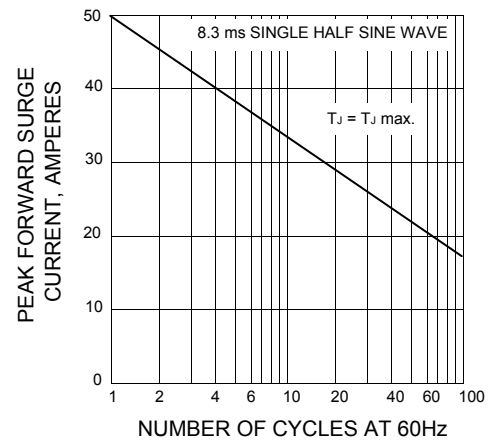


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

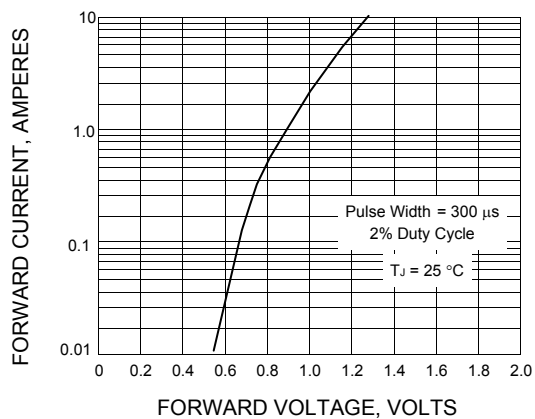


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

