

GP15A - GP15M

SILICON RECTIFIER DIODES

PRV : 50 - 1000 Volts

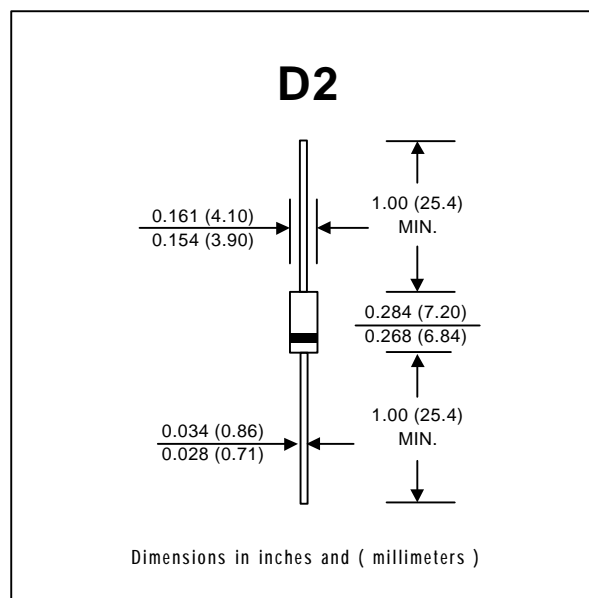
I_o : 1.5 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : D2 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 : 0.465 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 Ta = 55 °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 A	V _F	1.1							V
Maximum Full load Reverse Current, Full Cycle Average 0.375",(9.5mm) Lead Length Ta = 55°C	I _{R(AV)}	100							μA
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 150 °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 _{θJA}	25							°C/W
Junction Temperature Range	T _J	- 65 to + 175							°C
Storage Temperature Range	T _{STG}	- 65 to + 175							°C

Notes :

- (1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}
- (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

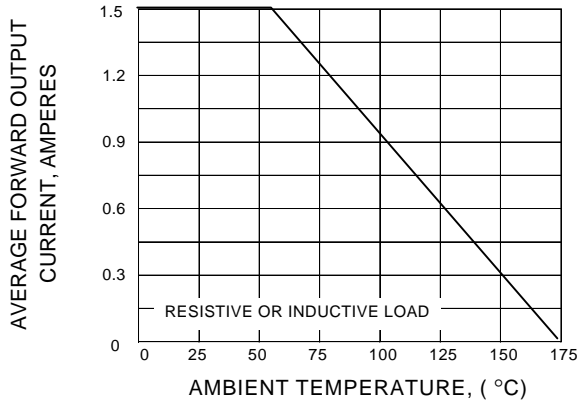


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

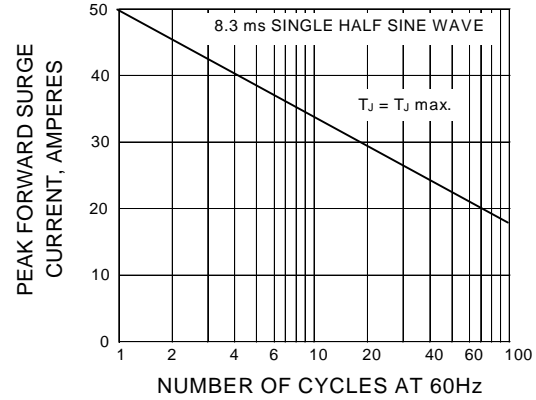


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

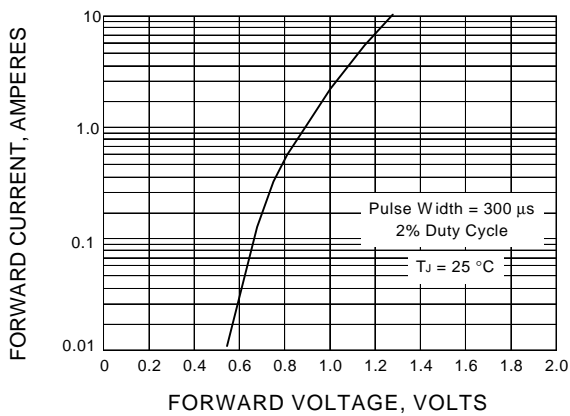


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

