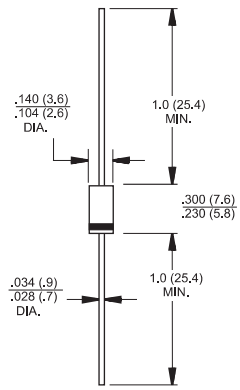
GP15A THRU GP15M

1.5 AMPS. Glass Passivated Junction Plastic Rectifiers

Voltage Range
50 to 1000 Volts
Current
1.5 Amperes

DO-15



Dimensions in inches and (millimeters)

Features

- ✧ High temperature metallurgically bonded construction
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Glass passivated cavity-free junction
- ✧ Capable of meeting environmental standards of MIL-S-19500
- ✧ 1.5 amperes operation at T_A=55°C and with no thermal runaway
- ✧ Typical I_R less than 0.1 uA
- ✧ High temperature soldering guaranteed: 350°C / 10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- ✧ Case: JEDEC DO-15 molded plastic over glass body
- ✧ Lead: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Mounting position: Any
- ✧ Weight: 0.015 ounce, 0.4 gram

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	GP 15A	GP 15B	GP 15D	GP 15G	GP 15J	GP 15K	GP 15M	Units
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 Rectified Current .375"(9.5mm) Lead Length at T_A=55℃	$I_{(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage @1.5A	V_F	1.1							V
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T_A=55℃	HTIR	100							uA
Maximum DC Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ T_A=150℃	I_R	5.0 200							uA uA
Typical Reverse Recovery Time (Note 1)	Trr	2.0							uS
Typical Junction Capacitance (Note 2)	Cj	15.0							pF
Typical Thermal Resistance (Note 3)	$R\theta_{JA}$	60							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	- 65 to + 175							℃

Notes: 1. Reverse Recovery Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
3. Mount on Cu-Pad Size 10mm x 10mm on P.C.B..

RATINGS AND CHARACTERISTIC CURVES (GP15A THRU GP15M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

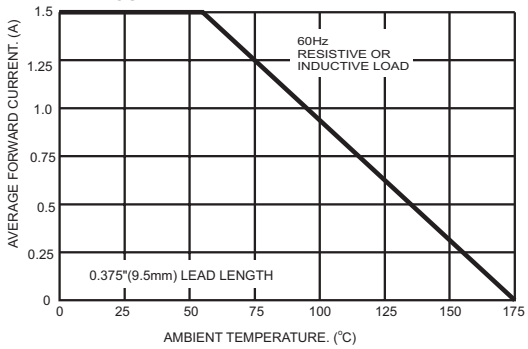


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

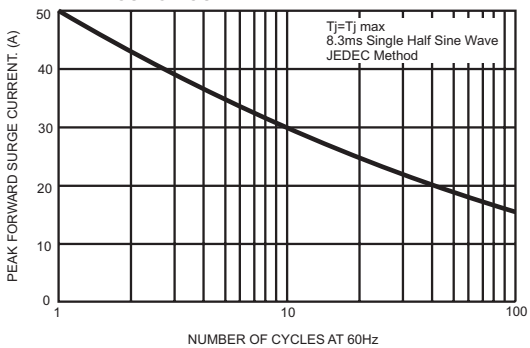


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

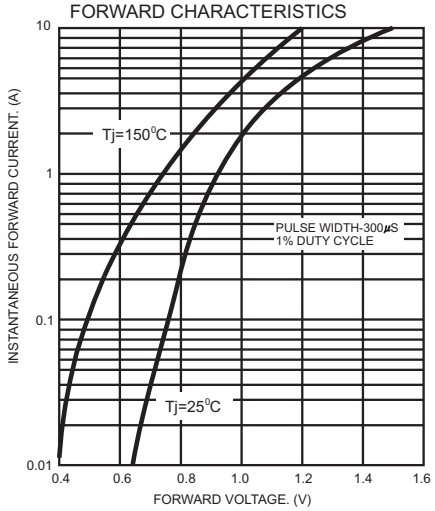


FIG.4- TYPICAL REVERSE CHARACTERISTICS

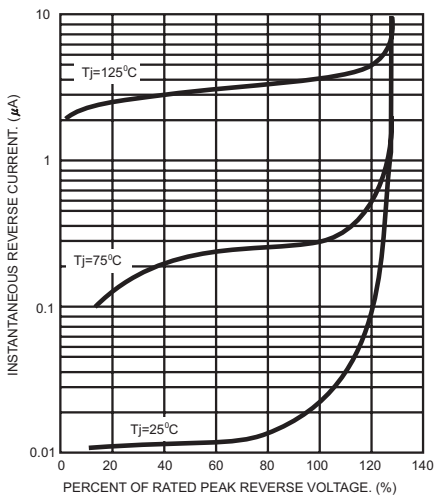


FIG.5- TYPICAL JUNCTION CAPACITANCE