

Pb Free Plating Product

YG902D2 thru YG902D6



10 Ampere Dual Doubler Polarity Ultra Fast Recovery Half Bridge Rectifiers

Features

- ★ Latest GPP technology with super fast recovery time
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

- ★ Automotive Inverters and Solar Inverters
- ★ Plating Power Supply, SMPS, EPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ★ Case: Fully Insulated Molding TO-220F
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: As marked on diode body
- ★ Mounting position: Any
- ★ Weight: 2.0 gram approximately

ITO-220AB Unit:mm

Positive Common Cathode Suffix "C2"
Negative Common Anode Suffix "N2"
Doubler Tandem Polarity Suffix "D2"
Series Connection Tandem Polarity Suffix "S2"

Suffix "C4" Suffix "N4" Suffix "D4" Suffix "S4"
Suffix "C6" Suffix "N6" Suffix "D6" Suffix "S6"

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | SYMBOL | YG902D2 | YG902D4 | YG902D6 | UNIT |
|--|-----------------------------------|-------------|---------|---------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 200 | 400 | 600 | V |
| Maximum RMS Voltage | V _{RMS} | 140 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V _{DC} | 200 | 400 | 600 | V |
| Maximum Average Forward Rectified Current T _C =100°C | I _{F(AV)} | 10.0 | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 100 | | | A |
| Maximum Instantaneous Forward Voltage @ 5.0 A | V _F | 0.98 | 1.3 | 1.7 | V |
| Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C | I _R | 5.0 100 | | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 35 | | | nS |
| Typical junction Capacitance (Note 2) | C _J | 65 | | | pF |
| Typical Thermal Resistance (Note 3) | R _{θJC} | 2.2 | | | °C/W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | °C |

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

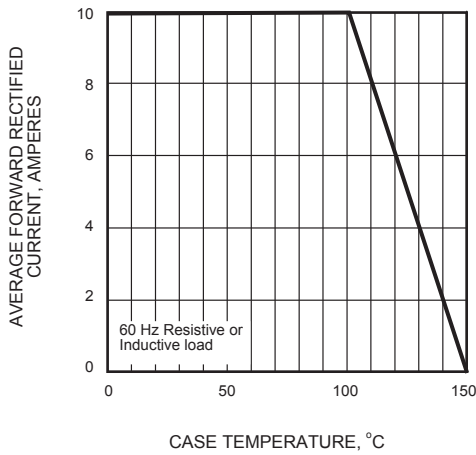


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

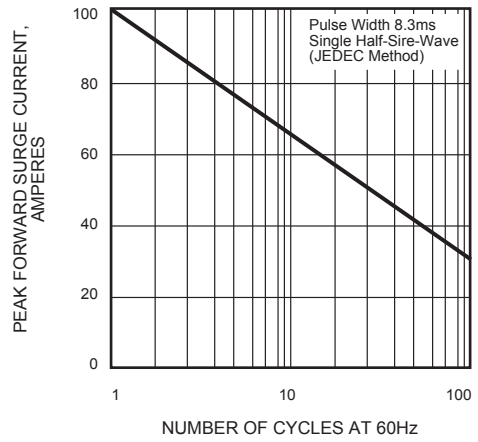


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

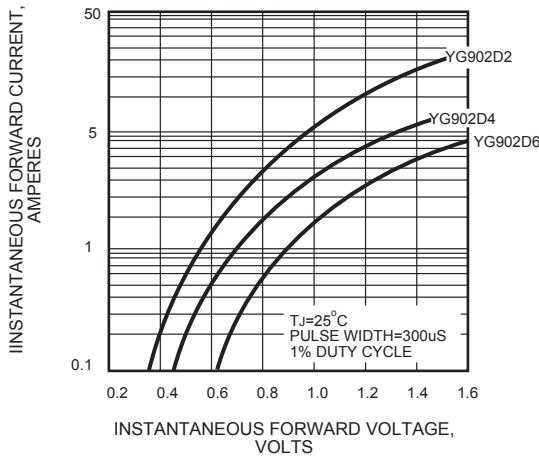


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

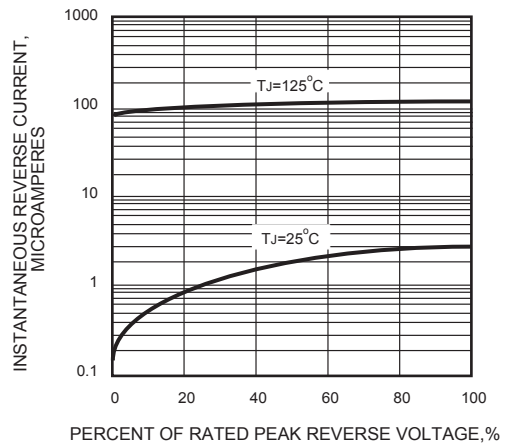


FIG.5 - TYPICAL JUNCTION CAPACITANCE

