

Pb Free Plating Product

YG225S2/YG225S4/YG225S6



10 Ampere Insulated Series Connection 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, Motor Control and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

**Mechanical Data**

- ★ Case: Fully Isolated Molding TO-220FP
- ★ 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"  
Suffix "C4"  
Suffix "C6"

Negative Common Anode  
Suffix "N2"  
Suffix "N4"  
Suffix "N6"

Doubler Tandem Polarity  
Suffix "D2"  
Suffix "D4"  
Suffix "D6"

Series Connection Tandem Polarity  
Suffix "S2"  
Suffix "S4"  
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	YG225S2	YG225S4	YG225S6	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	400	600	V
Maximum Average Forward Rectified Current T <sub>C</sub> =100°C	I <sub>F(AV)</sub>	10.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	100			A
Maximum Instantaneous Forward Voltage @ 5.0 A	V <sub>F</sub>	0.98	1.3	1.7	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	5.0 100			uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35			nS
Typical junction Capacitance (Note 2)	C <sub>J</sub>	65			pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	2.2			°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150			°C

NOTES : (1) Reverse recovery test conditions I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 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

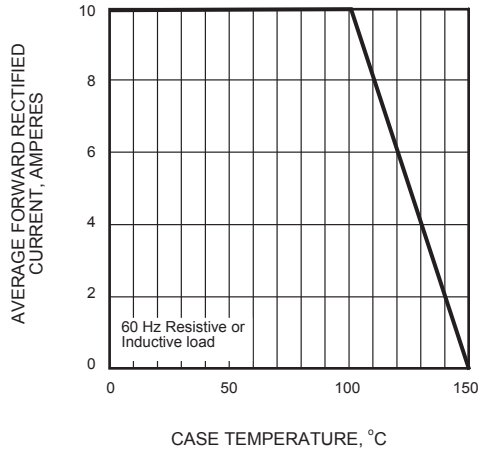


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

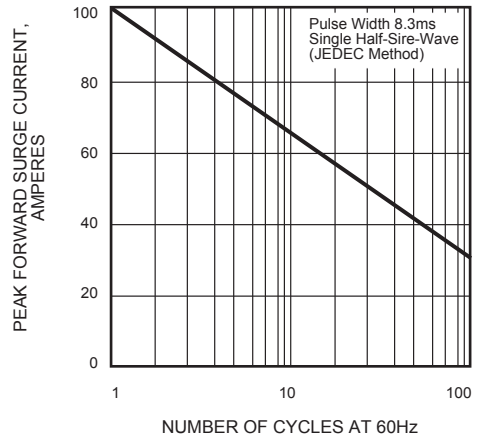


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

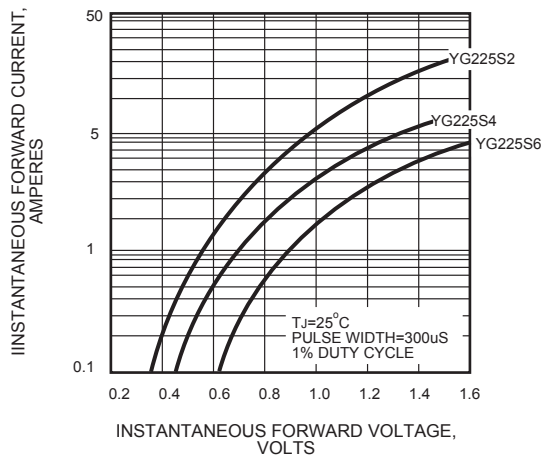


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

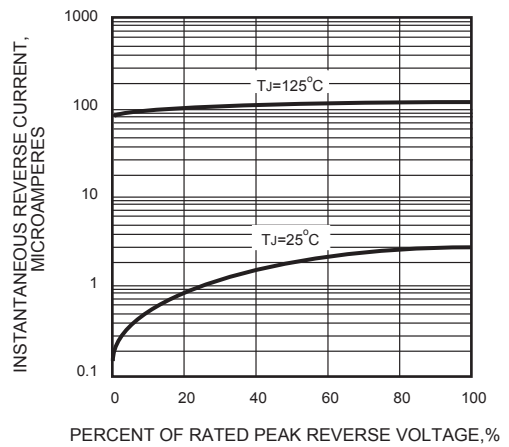


FIG.5 - TYPICAL JUNCTION CAPACITANCE

