

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **50 to 200** Volts
FORWARD CURRENT - **8.0** Amperes

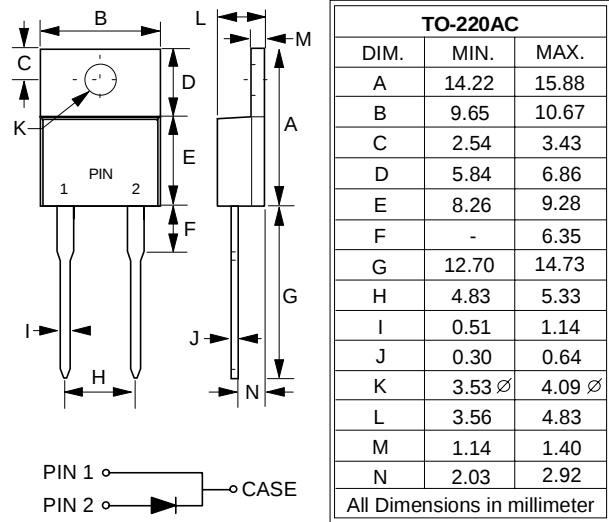
FEATURES

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity
- Plastic package has UL flammability classification 94V-0

MECHANICAL DATA

- Case : TO-220AC molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	STPR805DB	STPR810DB	STPR815DB	STPR820DB	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	V
Maximum Average Forward Rectified Current @T _C =125°C	I _(AV)	8				A
Peak Forward Surge Current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100				A
Maximum Forward Voltage @T _J =25°C @T _J =150°C	V _F	1.3 0.8				V
Maximum DC Reverse Current at Peak Reverse Voltage @T _J =25°C @T _J =100°C	I _R	10 500				uA
Typical Junction Capacitance (Note 1)	C _J	45				pF
Maximum Reverse Recovery Time (Note 2)	T _{RR}	25				ns
Typical Thermal Resistance (Note 3)	R _{θJC}	3.0				°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +150				°C

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2.Reverse Recovery Test Conditions:I_F=0.5A,I_R=1.0A ,I_{RR} 0.25A.
3.Thermal Resistance Junction to Case.

REV. 3, 13-Sep-2001, KTGA03

FIG.1 - FORWARD CURRENT DERATING CURVE

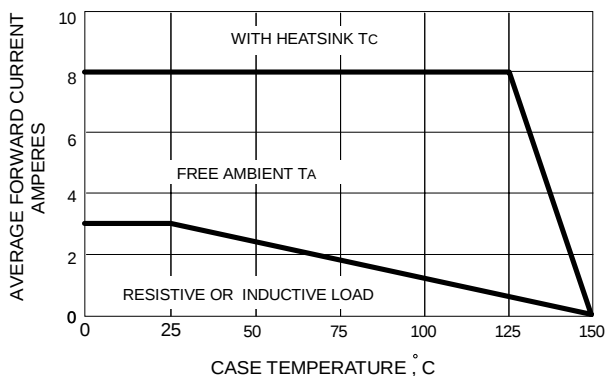


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

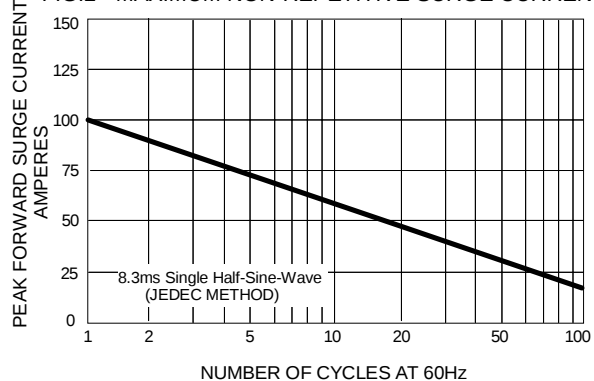


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

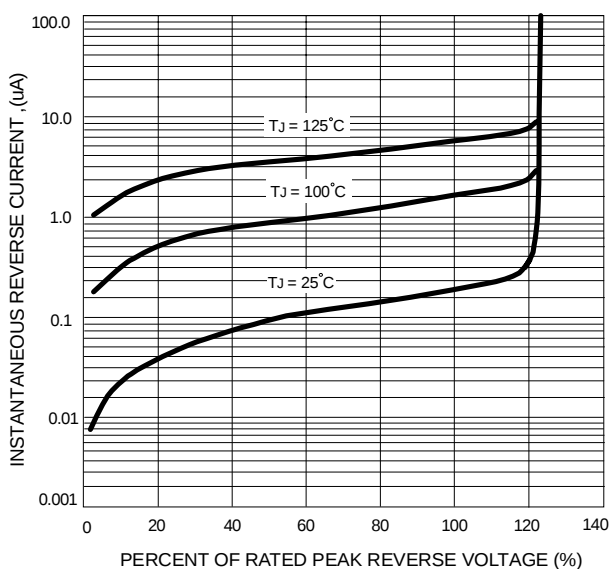


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

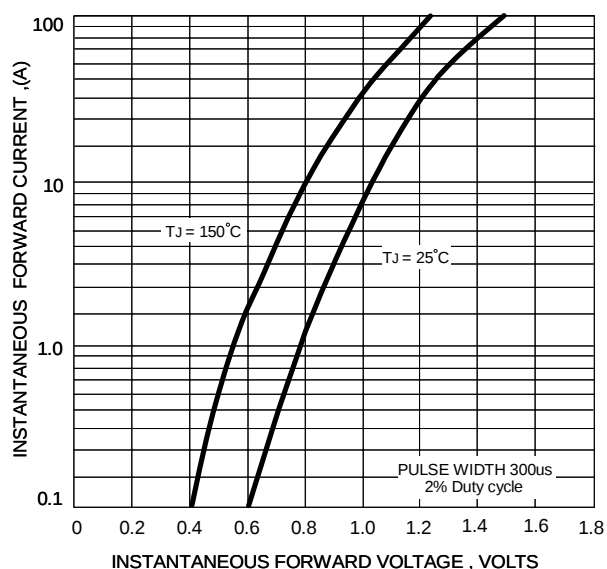


FIG.5 - TYPICAL JUNCTION CAPACITANCE

