

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - 400 Volts
FORWARD CURRENT - 16 Amperes

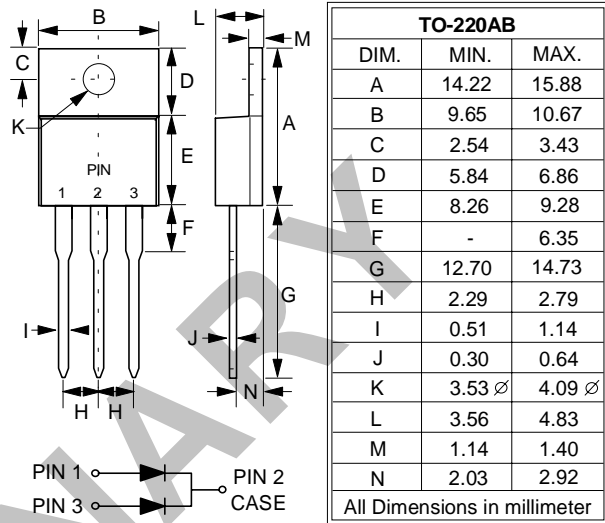
FEATURES

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

TO-220AB



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	STPR1640CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	400	V
Maximum RMS Voltage	V _{RMS}	280	V
Maximum DC Blocking Voltage	V _{DC}	400	V
Maximum Average Forward Rectified Current @ T _C =120°C	I(AV)	16	A
Non Repetitive Peak Forward Surge Current Per Diode TP=10ms	I _{FSM}	80	A
Sinusoidal (JEDEC Method) TP=8.3ms		90	
Maximum forward Voltage Pulse Width =300us I _F =16A @ T _J =25°C Duty cycle	V _F	1.5	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _J =100°C	I _R	5 500	uA
Typical Junction Capacitance per element (Note 1)	C _J	80	pF
Maximum Reverse Recovery Time (Note 2)	T _{RR}	35	ns
Typical Thermal Resistance	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.

REV. 2-PRE, 13-Sep-2001, KTGC07

FIG.1 - FORWARD CURRENT DERATING CURVE

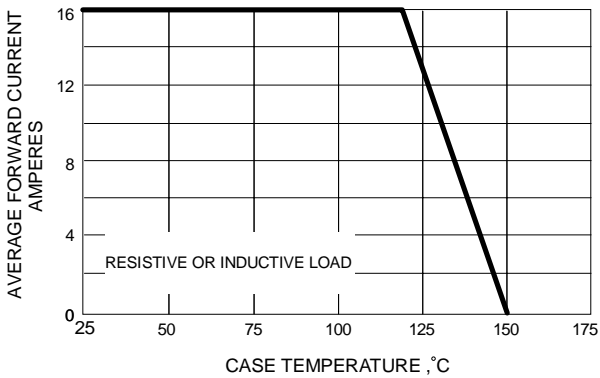


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

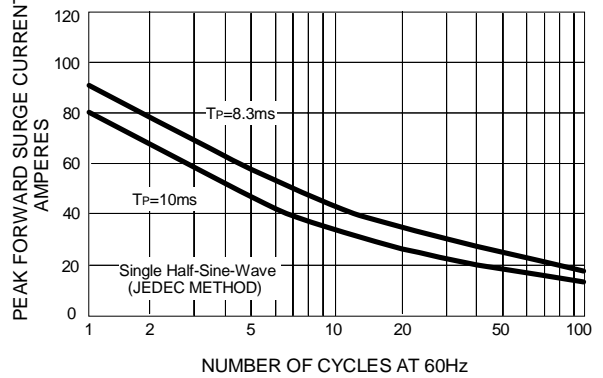


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

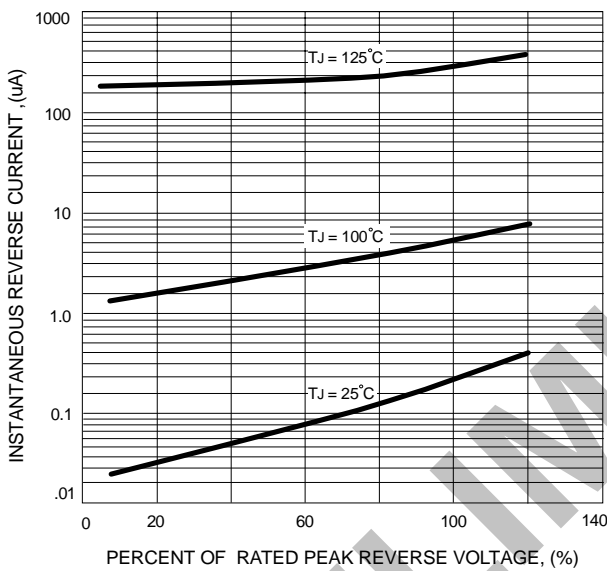


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

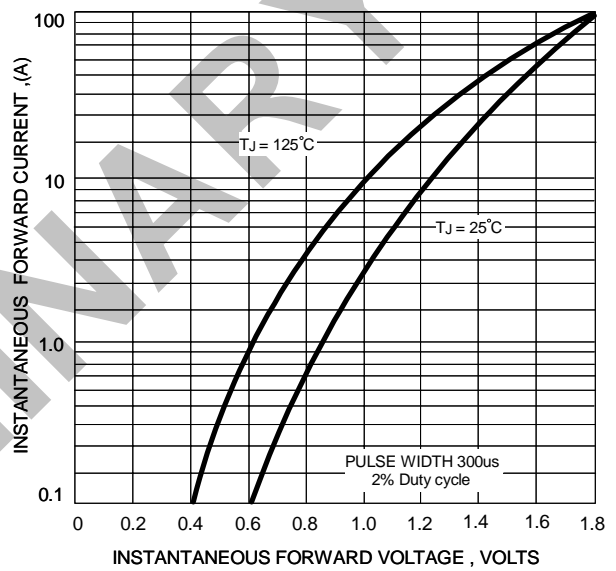


FIG.5 - TYPICAL JUNCTION CAPACITANCE

