

**SUPER FAST  
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **100 to 600** Volts  
FORWARD CURRENT - **10** Amperes

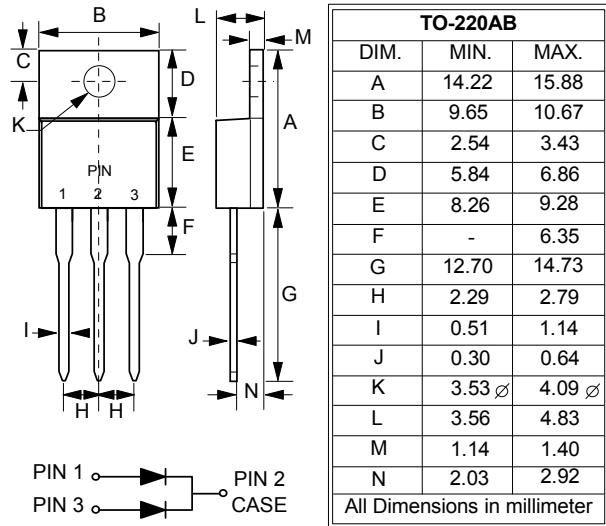
**FEATURES**

- 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
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

**TO-220AB**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	STPR 1010CT	STPR 1020CT	STPR 1030CT	STPR 1040CT	STPR 1050CT	STPR 1060CT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	100	200	300	400	500	600	V
Maximum RMS Voltage	VRMS	70	140	210	280	350	420	V
Maximum DC Blocking Voltage	VDC	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current @TC=125°C	IAV	10						A
Non Repetitive Peak Forward Surge Current Per Diode Sinusoidal TP=8.3ms	IFSM	55						A
Maximum forward Voltage IF=5A@TJ=25°C Pulse Width =300us Duty cycle IF=10A@TJ=25°C IF=10A@TJ=125°C	VF	1.1 1.0 1.25 1.20		1.3 1.2 1.5 1.4		1.5 1.4 1.7 1.6		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	10 250						uA
Typical Junction Capacitance per element (Note 1)	CJ	80						pF
Maximum Reverse Recovery Time (Note 2)	TRR	30		35		50		ns
Typical Thermal Resistance	R $\theta$ JC	4.0						°C/W
Operating and Storage Temperature Range	TJ,TSTG	-55 to +150						°C

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR 0.25A.

REV. 2, Sep-2010, KTGC10

FIG.1 - FORWARD CURRENT DERATING CURVE

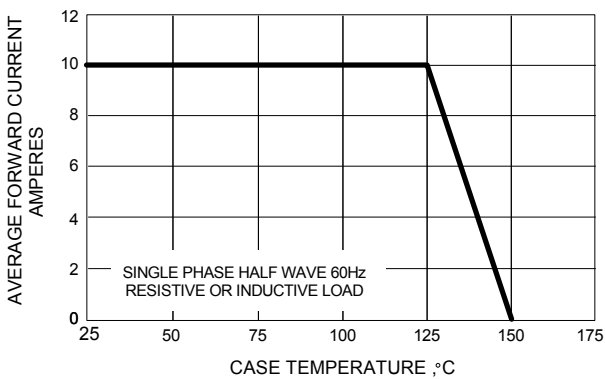


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

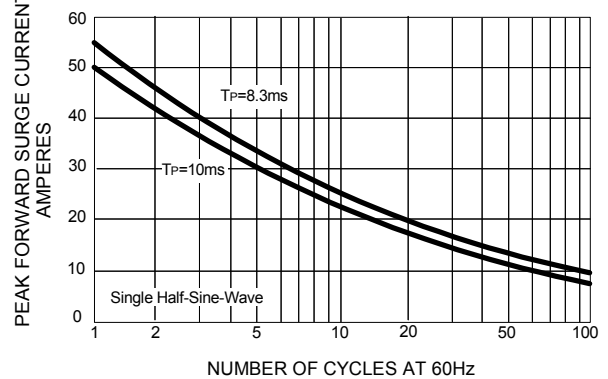


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

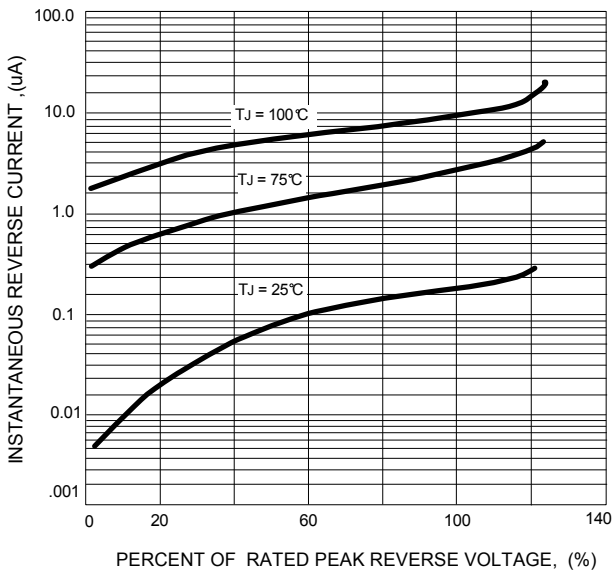


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

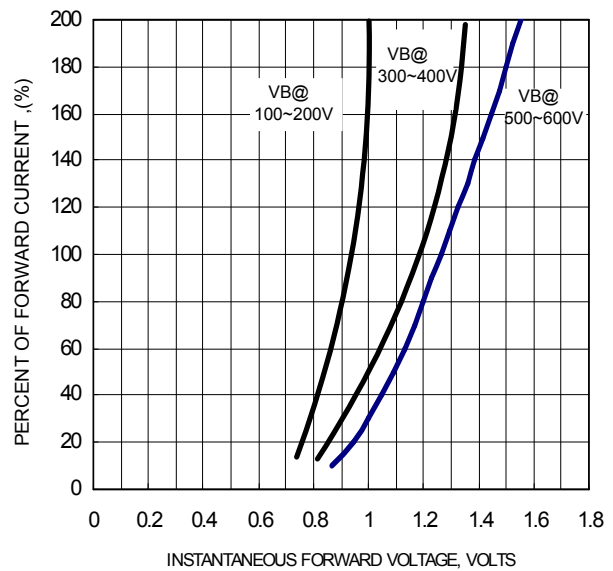


FIG.5 - TYPICAL JUNCTION CAPACITANCE

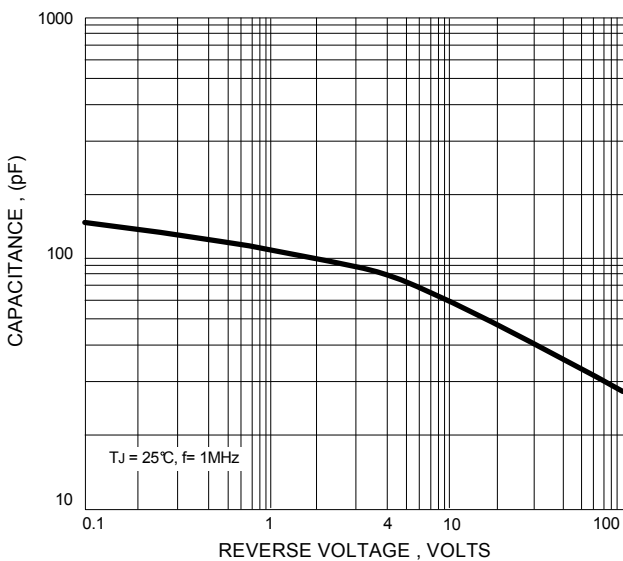
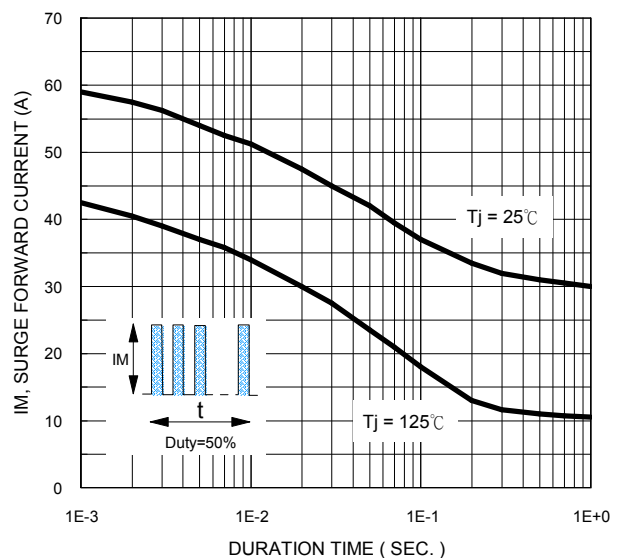


FIG.6 - MAXIMUM NON REPETITIVE SURGE PEAK FORWARD CURRENT VERSUS OVERLOAD DURATION PER DIODE



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