

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

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

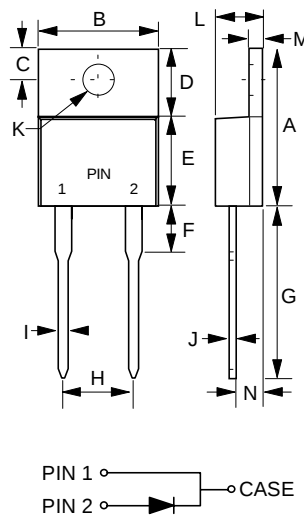
FEATURES

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

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 $\varnothing$	4.09 $\varnothing$
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All Dimensions in millimeter

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	STPR 1010D	STPR 1020D	STPR 1030D	STPR 1040D	STPR 1050D	STPR 1060D	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=115 °C	I(AV)	10						A
Peak Forward Surge Current 8.3ms single half-sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	125						A
Maximum Forward Voltage (Note 1) IF= 10A @TJ =25°C IF= 10A @TJ =125°C	VF	1.1 1.0		1.3 1.2		1.5 1.4		V
Maximum DC Reverse Current at Peak Reverse Voltage @TJ =25°C @TJ =125°C	IR	10 1000						uA
Typical Junction Capacitance VR=4V, f=1MHz	CJ	160						pF
Maximum Reverse Recovery Time (Note 2)	TRR	30		35		50		ns
Typical Thermal Resistance (Note 3)	RθJC	2.0						°C/W
Operating and Storage Temperature Range	TJ,TSTG	-55 to +150						°C

NOTES : 1.Pulse Test :Pulse Width=300us,Duty Cycle.
2.Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, I_{RR} 0.25A.
3.Thermal Resistance Junction to Case.

REV. 0, Dec-2003, KTGA11

FIG.1 - FORWARD CURRENT DERATING CURVE

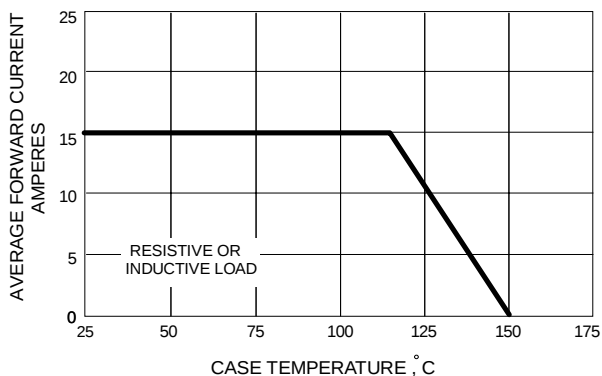


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

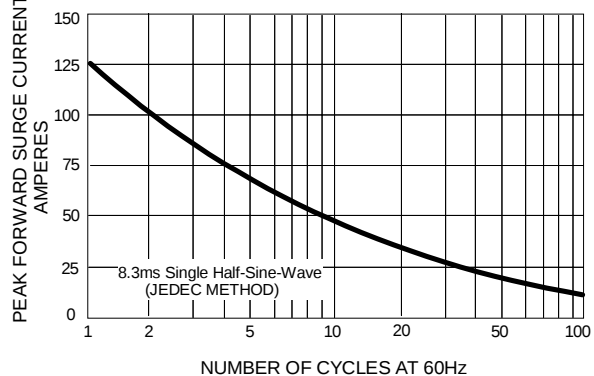


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

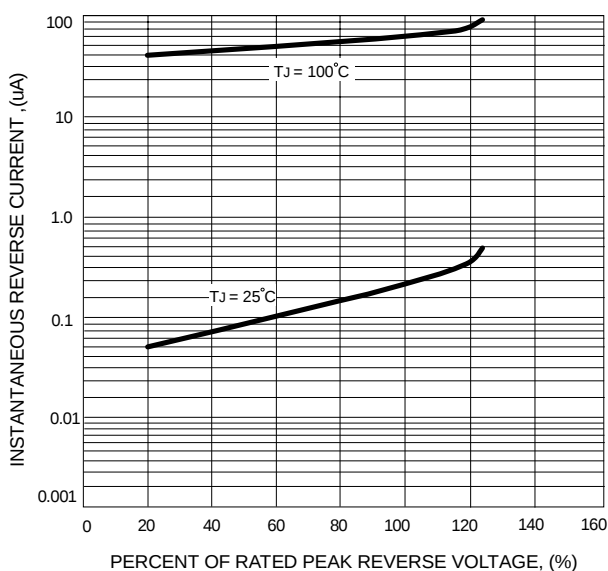


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

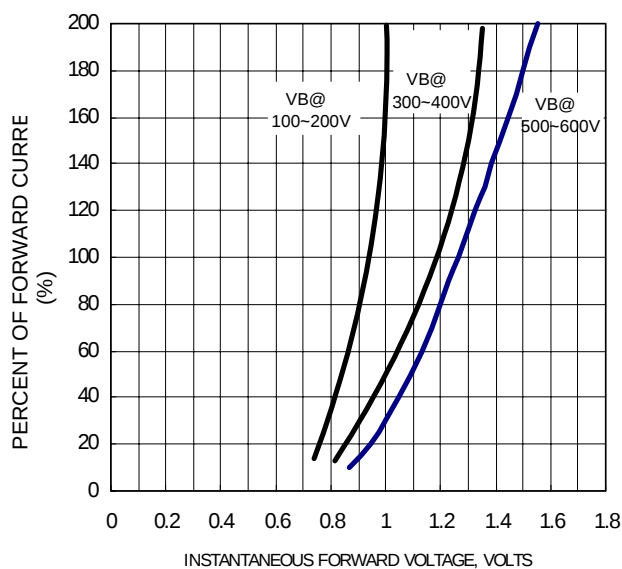


FIG.5 - TYPICAL JUNCTION CAPACITANCE

