

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **50 to 600** Volts
FORWARD CURRENT - **8.0** Amperes

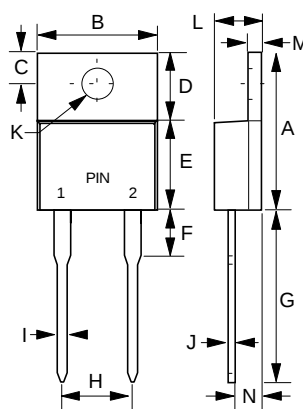
FEATURES

- 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



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 805DF	STPR 810DF	STPR 815DF	STPR 820DF	STPR 830DF	STPR 840DF	STPR 850DF	STPR 860DF	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current @TC=100°C	l(AV)	8								A
Peak Forward Surge Current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Metod)	lFSM	125								A
Maximum Forward Voltage at 8.0A DC	VF	0.95				1.3		1.5		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25°C @TJ =100°C	IR	5 500								uA
Typical Junction Capacitance (Note 1)	CJ	110						60		pF
Maximum Reverse Recovery Time (Note 2)	TRR	35				50				ns
Typical Thermal Resistance (Note 3)	RθJC	2.5								°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: $I_F=0.5A, I_R=1.0A, I_{RR} 0.25A$.
3.Thermal Resistance Junction to Case.

REV. 3, 13-Sep-2001, KTGA04

FIG.1 - FORWARD CURRENT DERATING CURVE

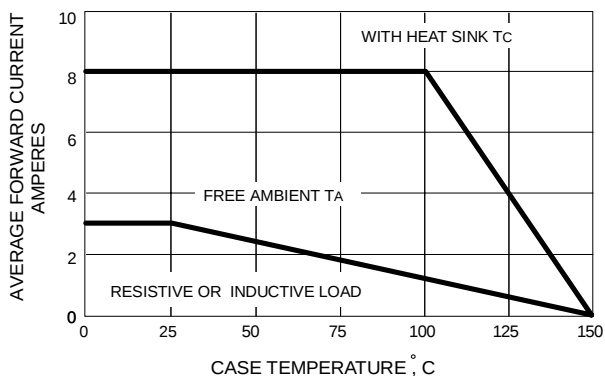


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

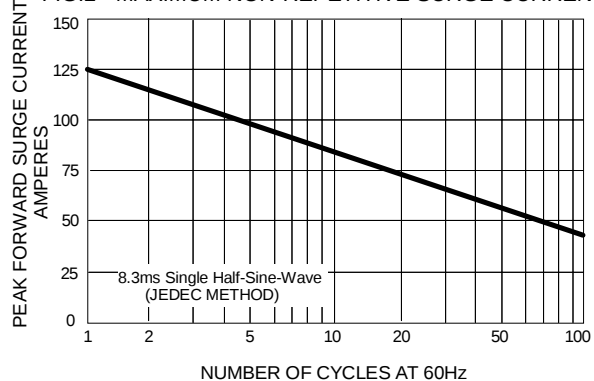


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

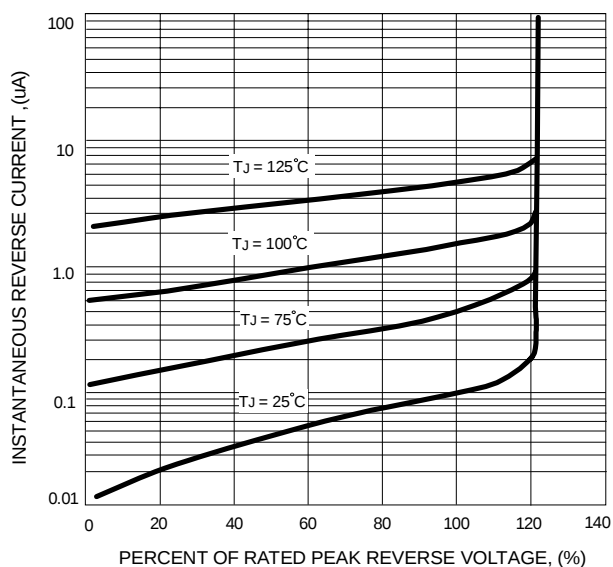


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

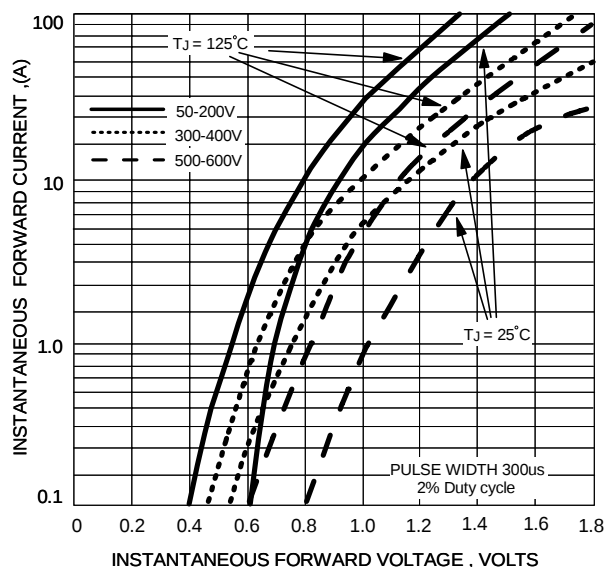
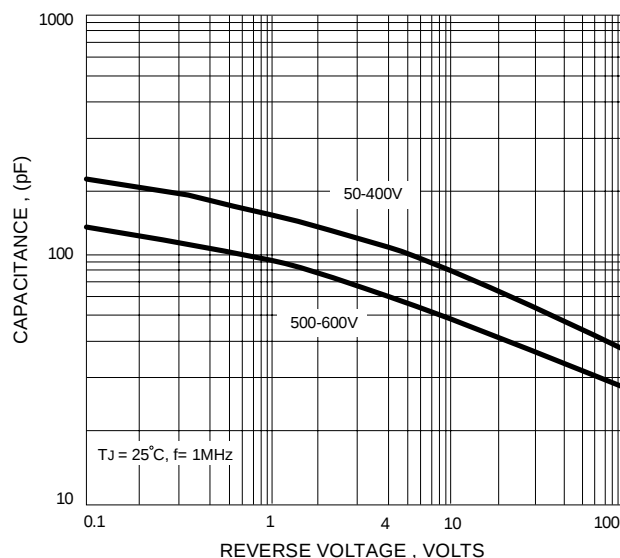


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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