

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **100 to 600** Volts
FORWARD CURRENT - **16** Amperes

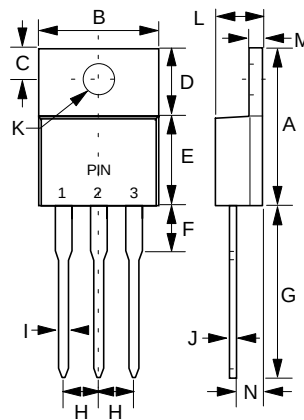
FEATURES

- 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



TO-220AB		
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	2.29	2.79
I	0.51	1.14
J	0.30	0.64
K	3.53 Ø	4.09 Ø
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 1610CT	STPR 1620CT	STPR 1630CT	STPR 1640CT	STPR 1650CT	STPR 1660CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	200	300	400	500	600	V
Maximum RMS Voltage	V _{RMS}	70	140	210	280	350	420	V
Maximum DC Blocking Voltage	V _{DC}	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current @T _C =120℃	I(AV)	16						A
Non Repetitive Peak Forward Surge Current Per Diode Sinusoidal (JEDEC Method) T _P =8.3ms	I _{FSM}	90						A
Maximum forward Voltage IF=8A @T _J =25℃ Pulse Width =300us IF=8A @T _J =125℃ Duty cycle IF=16A @T _J =25℃ IF=16A @T _J =125℃	V _F	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 @T _J =25℃ @T _J =100℃	I _R	10 500						uA
Typical Junction Capacitance per element (Note 1)	C _J	80						pF
Maximum Reverse Recovery Time (Note 2)	T _{RR}	30		35		50		ns
Typical Thermal Resistance	R _{θJC}	3.0						℃/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +150						℃

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. 0, Dec-2003, KTGC12

FIG.1 - FORWARD CURRENT DERATING CURVE

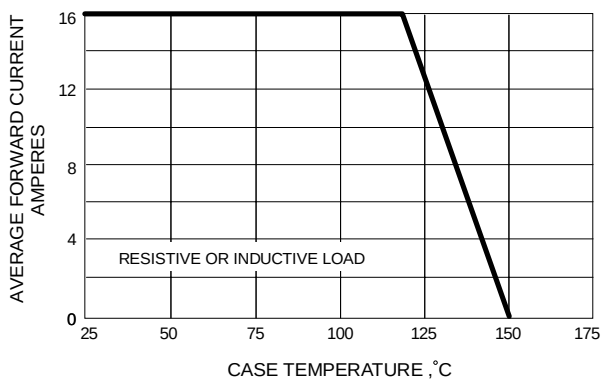


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

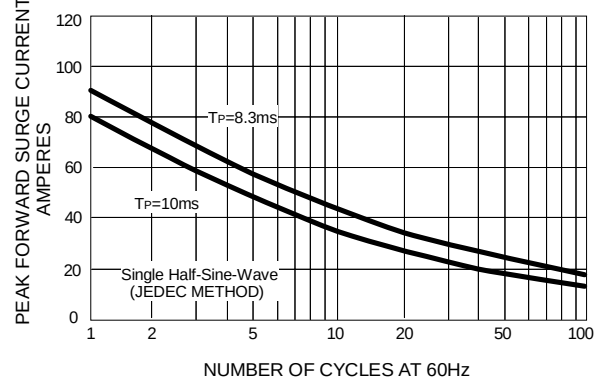


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

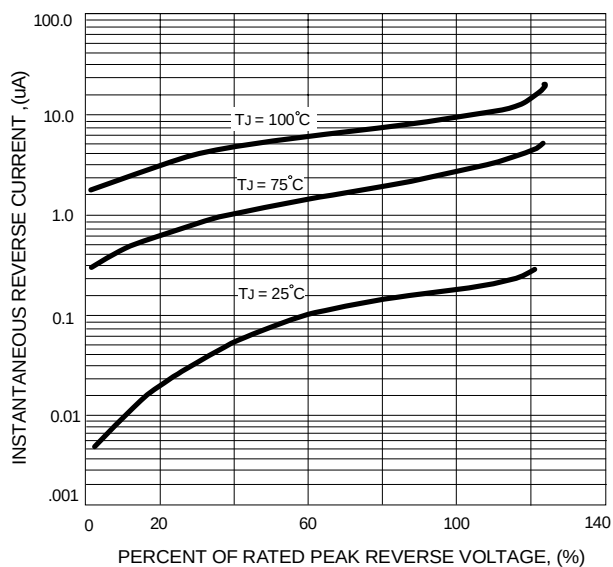


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

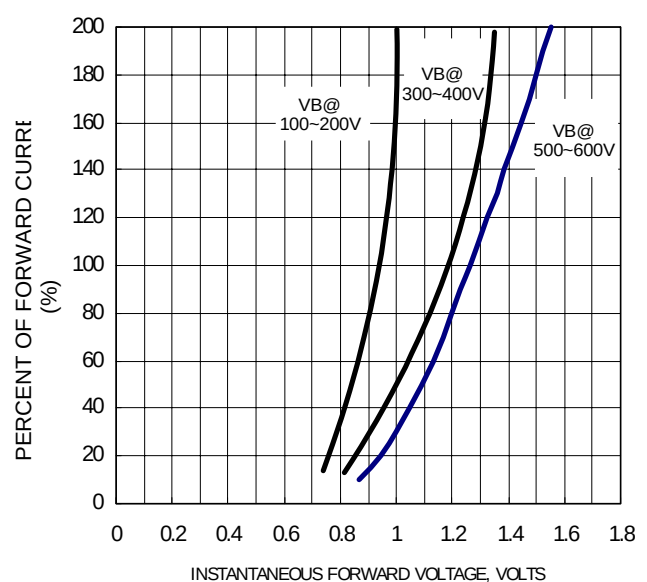


FIG.5 - TYPICAL JUNCTION CAPACITANCE

