

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **100 to 200** Volts
FORWARD CURRENT - **10** Amperes

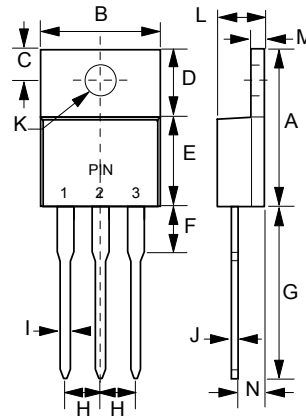
FEATURES

- 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
- Soft recovery characteristic

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



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 \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	STPRA1010CT	STPRA1020CT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	100	200	V
Maximum RMS Voltage	VRMS	70	140	V
Maximum DC Blocking Voltage	VDC	100	200	V
Maximum Average Forward Rectified Current @Tc=110°C	I(AV)	10		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	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		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	50 600		uA
Typical Junction Capacitance per element (Note 1)	CJ	25		pF
Maximum Reverse Recovery Time (Note 2)	TRR	30		ns
Typical Thermal Resistance (Note 3)	R θ 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.
3.Device mounted on 75 mm x 75 mm x 2 mm Cu Plate.

FIG.1 - FORWARD CURRENT DERATING CURVE

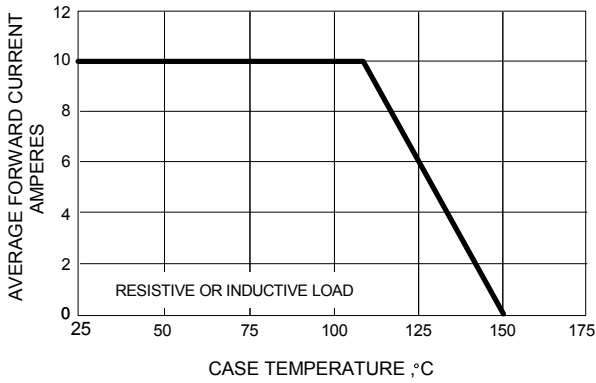


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

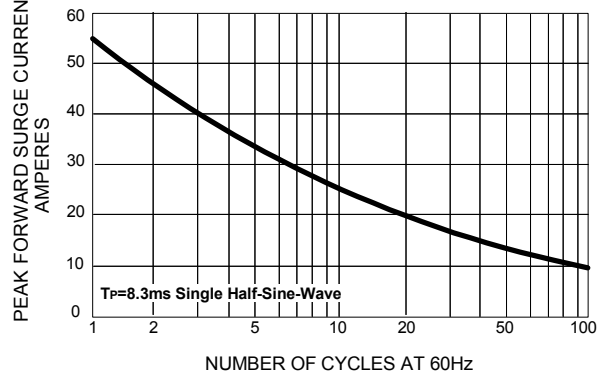


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

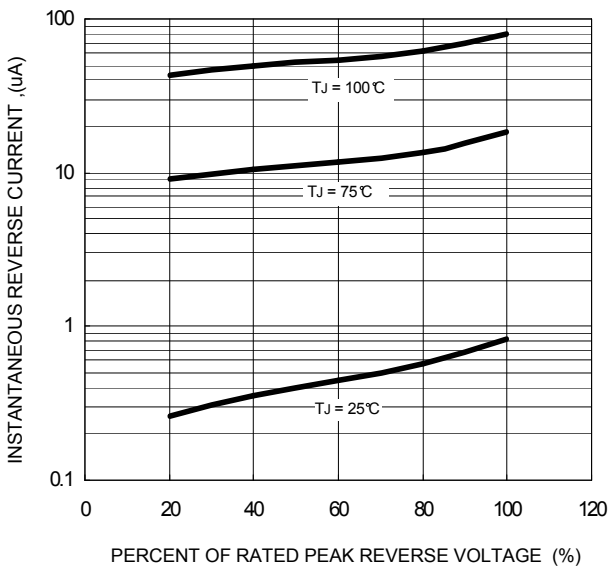


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

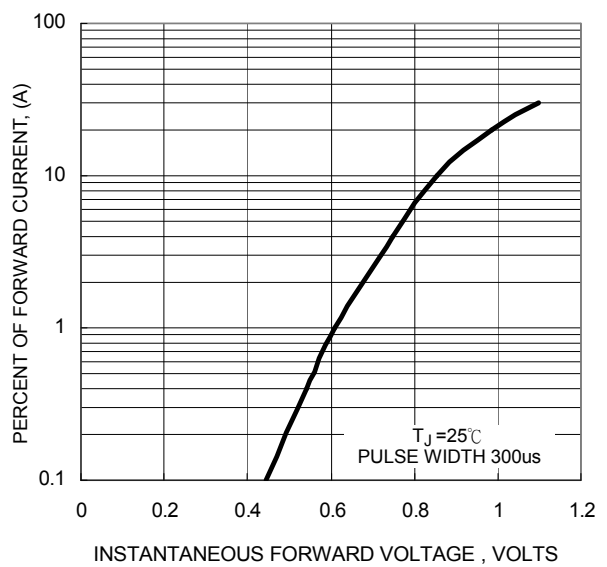


FIG.5 - TYPICAL JUNCTION CAPACITANCE

