LITE-ON SEMICONDUCTOR

STPR610CT thru 620CT

SUPER FAST
GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE **- 100** to **200** Volts
FORWARD CURRENT **- 6.0** Amperes

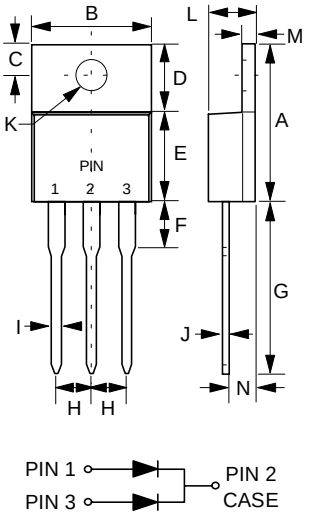
FEATURES

- 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-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 ∅	4.09 ∅
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℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	STPR610CT	STPR620CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	V
Maximum RMS Voltage	V_{RMS}	70	140	V
Maximum DC Blocking Voltage	V_{DC}	100	200	V
Maximum Average Forward Rectified Current @T_C=125˚C	$I_{(AV)}$	6.0		A
Non Repetitive Peak Forward Surge Current Per Diode Sinusoidal (JEDEC Method) T_P=10ms T_P=8.3ms	I_{FSM}	30 40		A
Maximum forward Voltage Pulse Width =300us Duty cycle I_F=3A @T_J=125˚C I_F=6A @T_J=125˚C I_F=6A @T_J=25˚C	V_F	0.99 1.20 1.25		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J=25˚C @T_J=100˚C	I_R	5 50		uA uA
Typical Junction Capacitance per element (Note 1)	C_J	35		pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	30		ns
Typical Thermal Resistance	$R_{\theta JC}$	6.5		˚C/W
Operating and Storage Temperature Range	T_J ,T_{STG}	-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.

REV. 3, 13-Sep-2001, KTGC06

RATING AND CHARACTERISTIC CURVES
STPR610CT thru STPR620CT

FIG.1 - FORWARD CURRENT DERATING CURVE

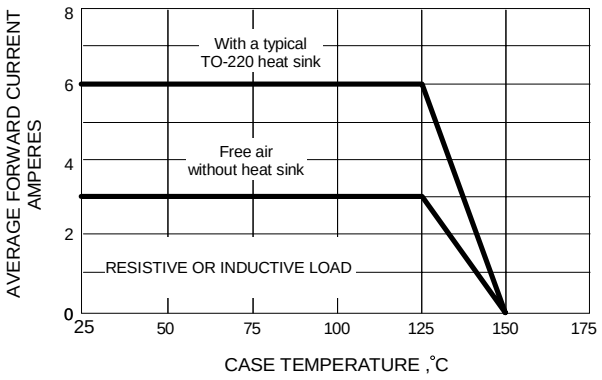


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

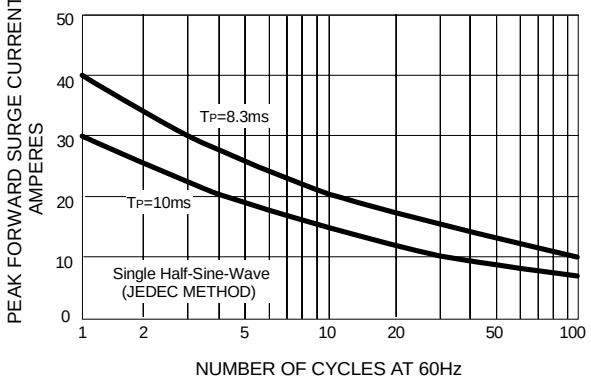


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

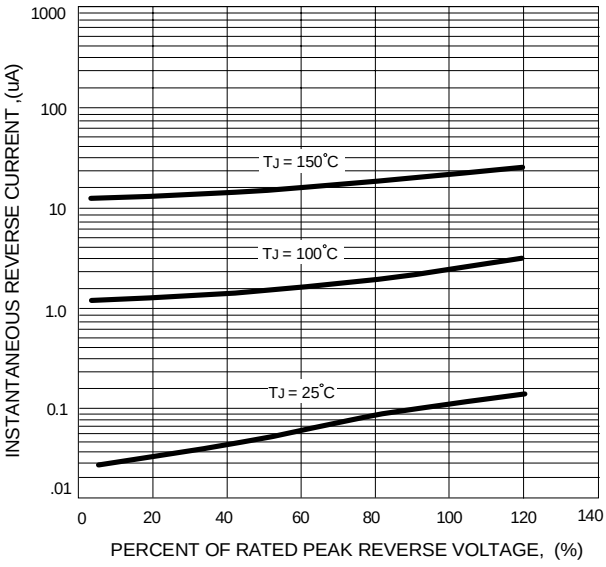


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

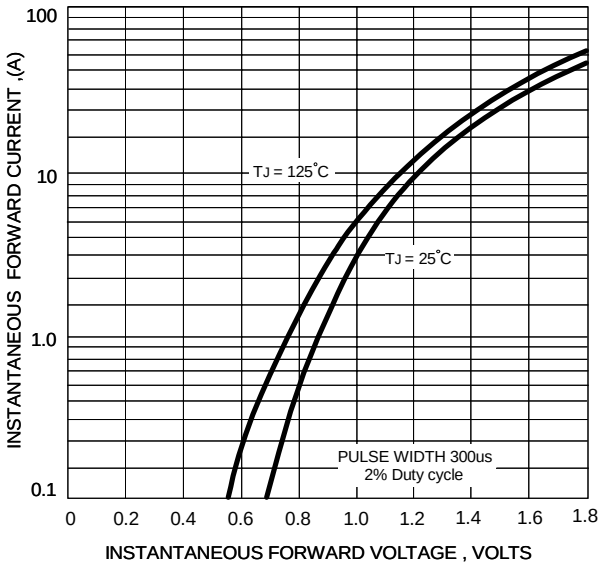


FIG.5 - TYPICAL JUNCTION CAPACITANCE