

**SUPER FAST
GLASS PASSIVATED RECTIFIERS**

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

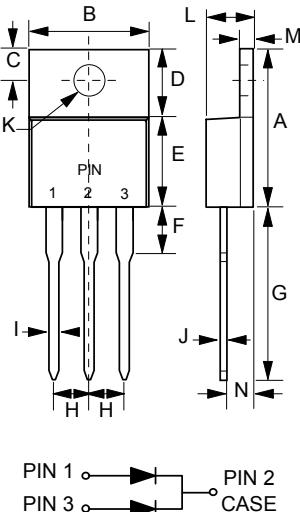
FEATURES

- 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
- 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 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.

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°C	I _(AV)			16				A
Non Repetitive Peak Forward Surge Current Per Diode Sinusoidal T _P =8.3ms	I _{FSM}			90				A
Maximum forward Voltage IF=8A @T _J =25°C Pulse Width =300us IF=8A @T _J =125°C Duty cycle IF=16A @T _J =25°C IF=16A @T _J =125°C	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 @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	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 _{θ JC}			3.0				°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. 2, Sep-2010, KTGC12

RATING AND CHARACTERISTIC CURVES
STPR1610CT thru STPR1660CT

LITEON

FIG.1 - FORWARD CURRENT DERATING CURVE

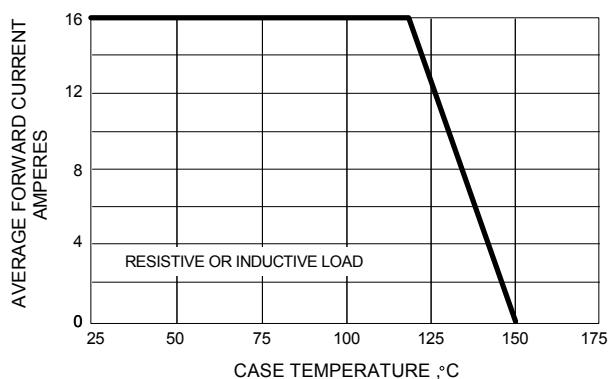


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

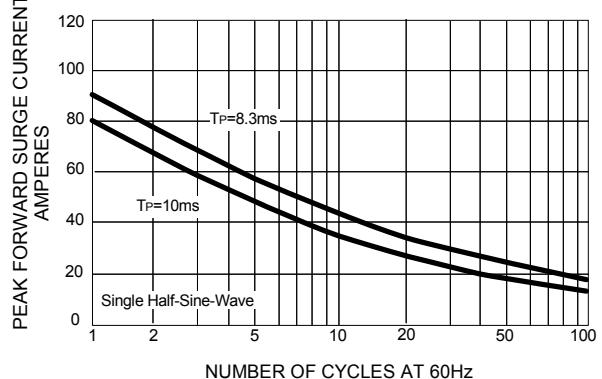


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

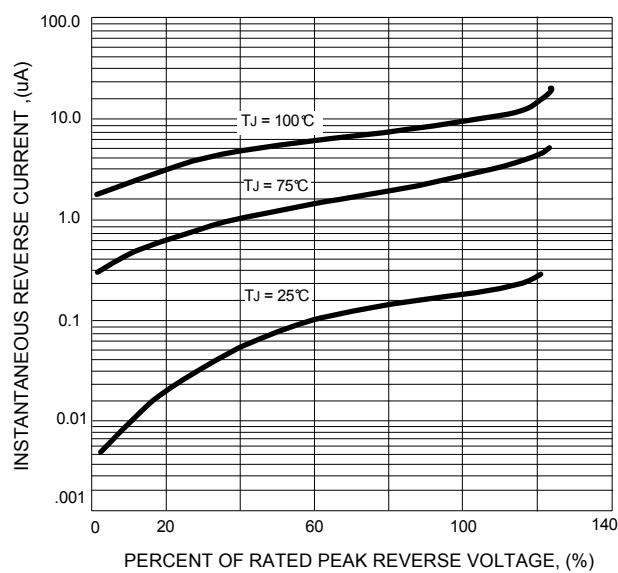


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

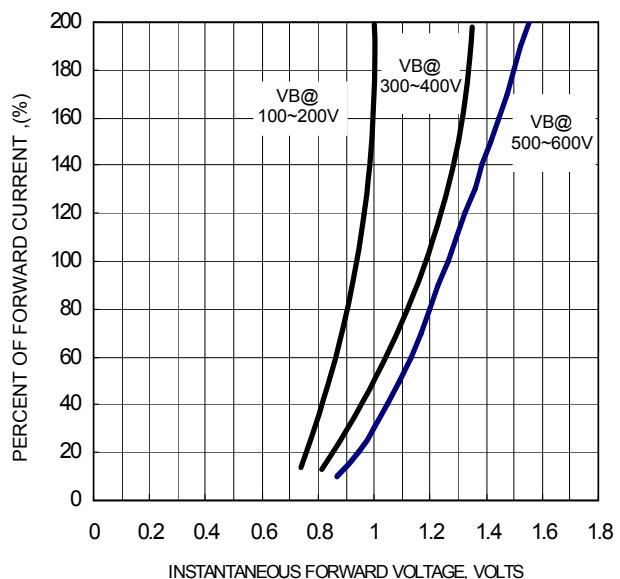
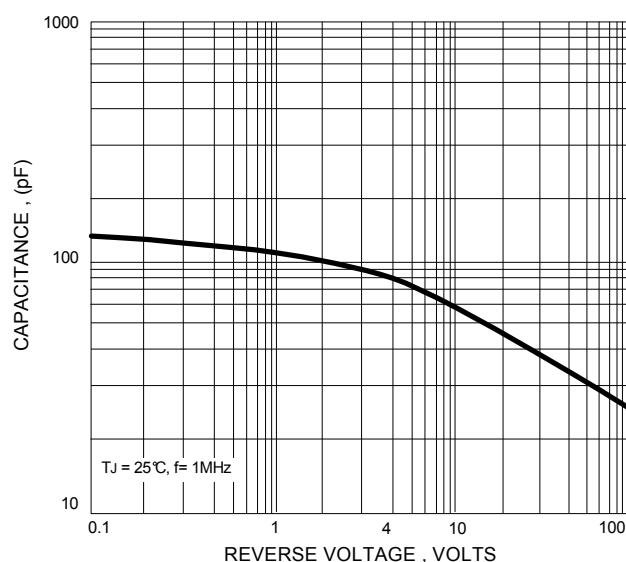


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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