

**SUPER FAST  
GLASS PASSIVATED RECTIFIERS**

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

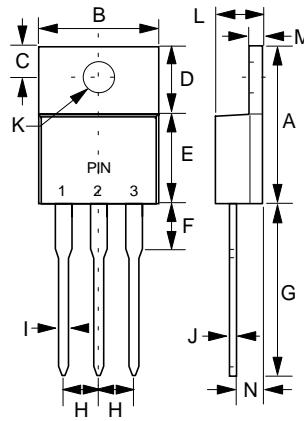
**FEATURES**

- 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

**MECHANICAL DATA**

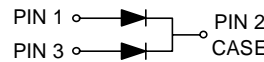
- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

**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 $\varnothing$	4.09 $\varnothing$
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All Dimensions in millimeter



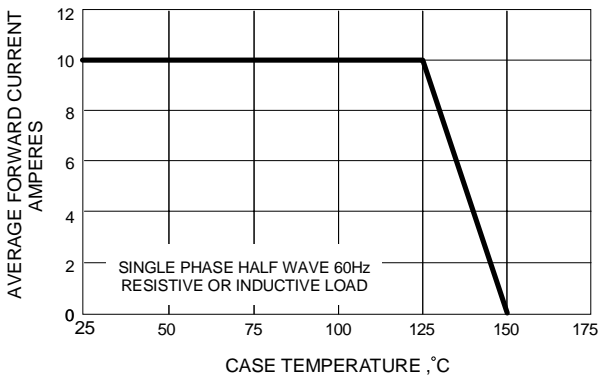
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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%

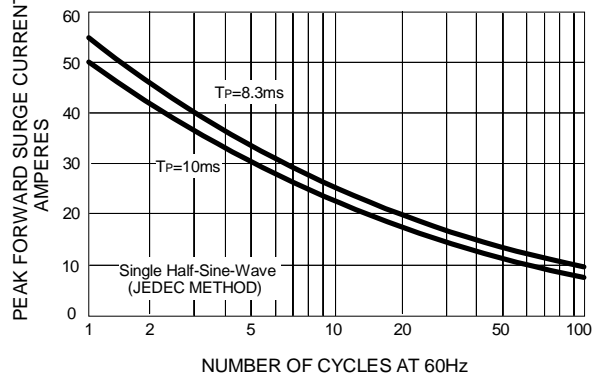
CHARACTERISTICS	SYMBOL	STPR1010CT	STPR1020CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	V
Maximum Average Forward Rectified Current @T <sub>C</sub> =125°C	I <sub>(AV)</sub>	10		A
Non Repetitive Peak Forward Surge Current Per Diode TP=10ms	I <sub>FSM</sub>	50		A
Sinusoidal (JEDEC Method) TP=8.3ms		55		
Maximum forward Voltage IF=5A@T <sub>J</sub> =25°C Pulse Width =300us Duty cycle IF=5A@T <sub>J</sub> =125°C IF=10A@T <sub>J</sub> =25°C IF=10A@T <sub>J</sub> =125°C	V <sub>F</sub>	0.975 0.925 1.25 1.20		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	5 100		uA
Typical Junction Capacitance per element (Note 1)	C <sub>J</sub>	80		pF
Maximum Reverse Recovery Time (Note 2)	T <sub>RR</sub>	30		ns
Typical Thermal Resistance	R <sub>θJC</sub>	4.0		°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150		°C

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub> 0.25A.

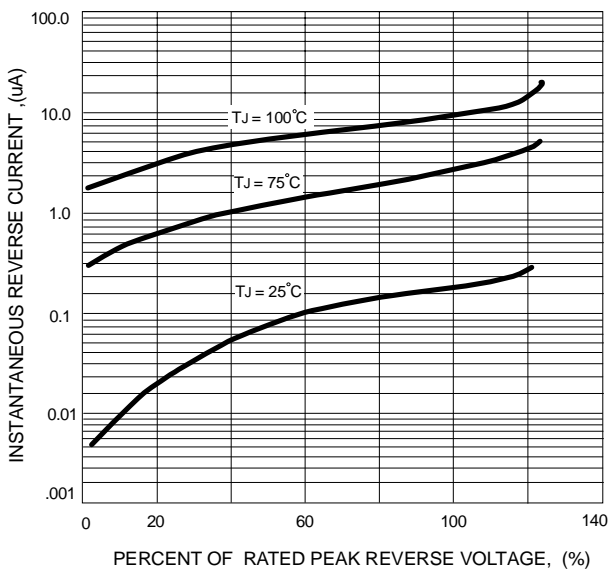
**FIG.1 - FORWARD CURRENT DERATING CURVE**



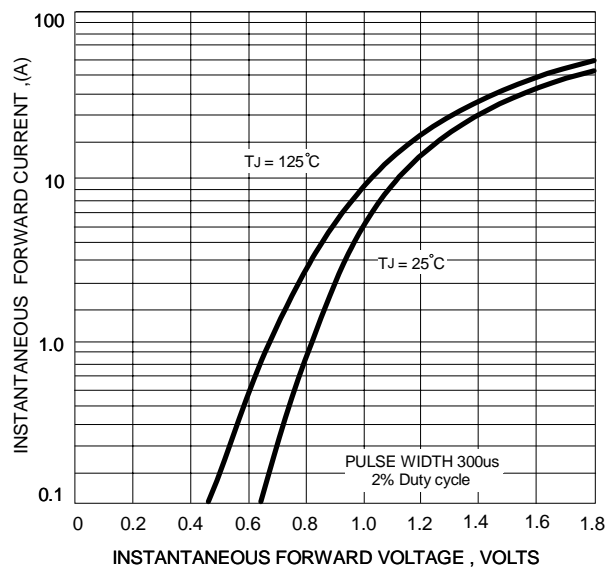
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL JUNCTION CAPACITANCE**

