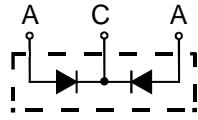
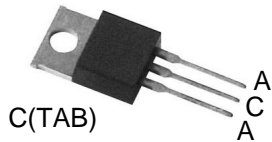


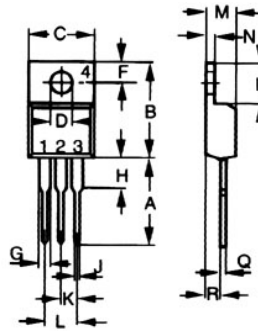
STPR1610CT thru STPR1620CT

Ultra Fast Recovery Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AB



Dim.	Inches		Millimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.550	12.70	13.97
B	0.580	0.630	14.73	16.00
C	0.390	0.420	9.91	10.66
D	0.139	0.161	3.54	4.08
E	0.230	0.270	5.85	6.85
F	0.100	0.125	2.54	3.18
G	0.045	0.065	1.15	1.65
H	0.110	0.230	2.79	5.84
J	0.025	0.040	0.64	1.01
K	0.100	BSC	2.54	BSC
M	0.170	0.190	4.32	4.82
N	0.045	0.055	1.14	1.39
Q	0.014	0.022	0.35	0.56
R	0.090	0.110	2.29	2.79

	VRRM	VRMS	VDC
	V	V	V
STPR1610CT	100	70	100
STPR1620CT	200	140	200

Symbol	Characteristics	Maximum Ratings	Unit
$I_{(AV)}$	Maximum Average Forward Rectified Current @ $T_C=120^\circ\text{C}$	16	A
I_{FSM}	Non Repetitive Peak Forward Surge Current Per Diode Sinusoidal (JEDEC METHOD) $T_P=10\text{ms}$ $T_P=8.3\text{ms}$	80 90	A
V_F	Maximum Forward Voltage Pulse Width=300us Duty Cycle $I_F=8\text{A}$ @ $T_J=25^\circ\text{C}$ $I_F=8\text{A}$ @ $T_J=125^\circ\text{C}$ $I_F=16\text{A}$ @ $T_J=25^\circ\text{C}$ $I_F=16\text{A}$ @ $T_J=125^\circ\text{C}$	1.1 1.0 1.25 1.20	V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	5 100	μA
C_J	Typical Junction Capacitance Per Element (Note 1)	80	pF
T_{RR}	Maximum Reverse Recovery Time (Note 2)	30	ns
$R_{\theta JC}$	Typical Thermal Resistance	3.0	$^\circ\text{C}/\text{W}$
T_J, T_{STG}	Operating And Storage Temperature Range	-55 to +150	$^\circ\text{C}$

NOTES: 1. Measured at 1.0MHz And Applied Reverse Voltage Of 4.0V DC.
2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.

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

MECHANICAL DATA

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



STPR1610CT thru STPR1620CT

Ultra Fast Recovery Diodes

FIG.1 - FORWARD CURRENT DERATING CURVE

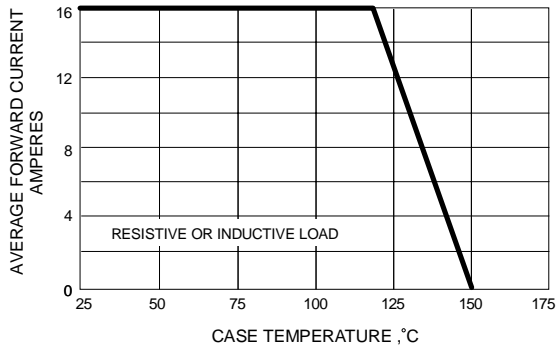


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

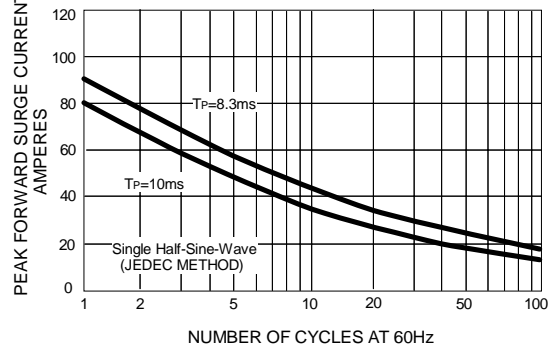


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

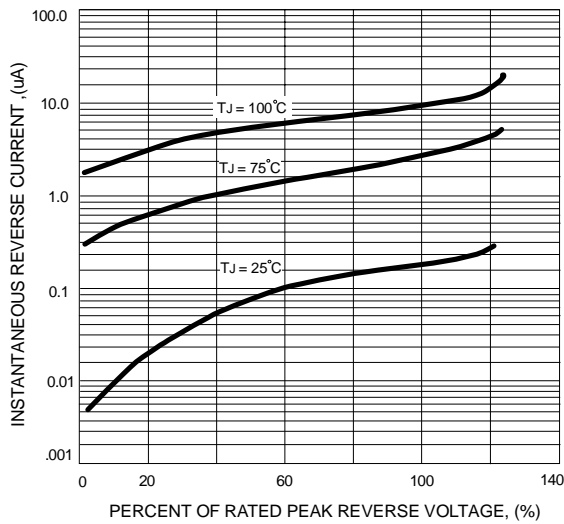


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

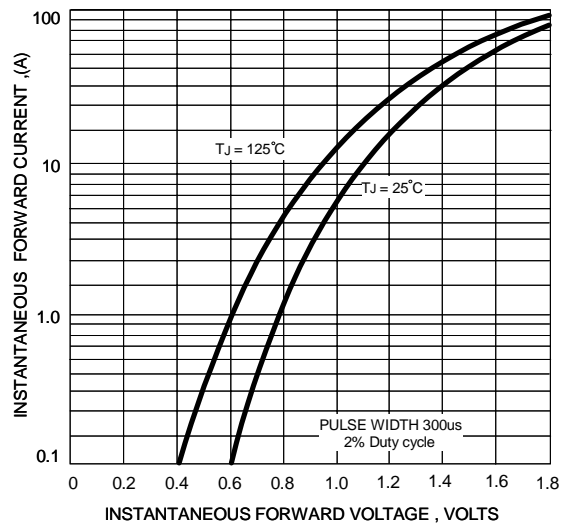


FIG.5 - TYPICAL JUNCTION CAPACITANCE

