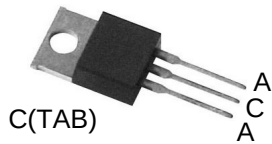


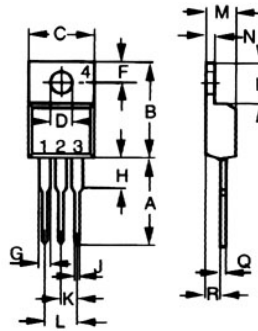
STPRF1650CT thru STPRF1660CT

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

	V_{RRM}	V_{RMS}	V_{DC}
	V	V	V
STPRF1650CT	500	350	500
STPRF1660CT	600	420	600

Symbol	Characteristics	Maximum Ratings	Unit
I_{AV}	Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	16	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	125	A
V_F	Maximum Forward Voltage At 8.0A DC	1.5	V
I_R	Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	5 500	μA
C_J	Typical Junction Capacitance Per Element (Note 1)	80	pF
T_{RR}	Maximum Reverse Recovery Time (Note 2)	50	ns
$R_{\theta JC}$	Typical Thermal Resistance (Note 3)	1.5	$^\circ\text{C/W}$
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: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.
3. Thermal Resistance Junction To Case.

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

STPRF1650CT thru STPRF1660CT

Ultra Fast Recovery Diodes

FIG.1 - FORWARD CURRENT DERATING CURVE

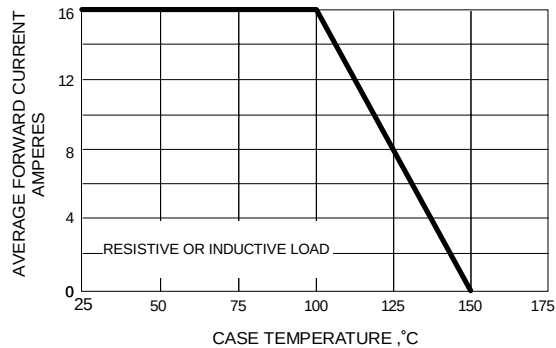


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

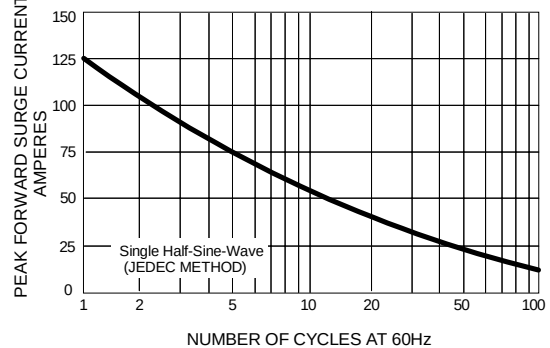


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

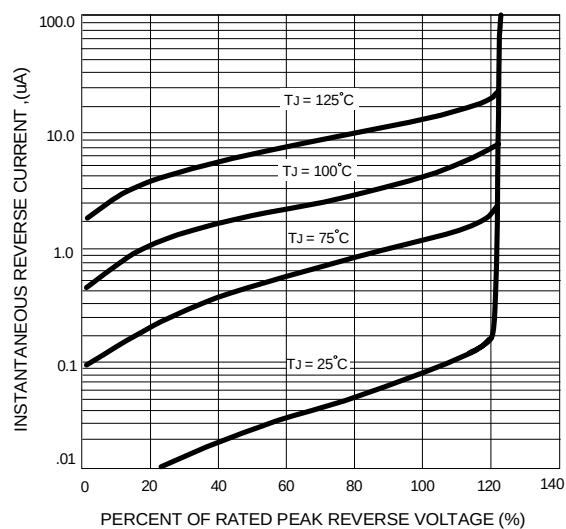


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

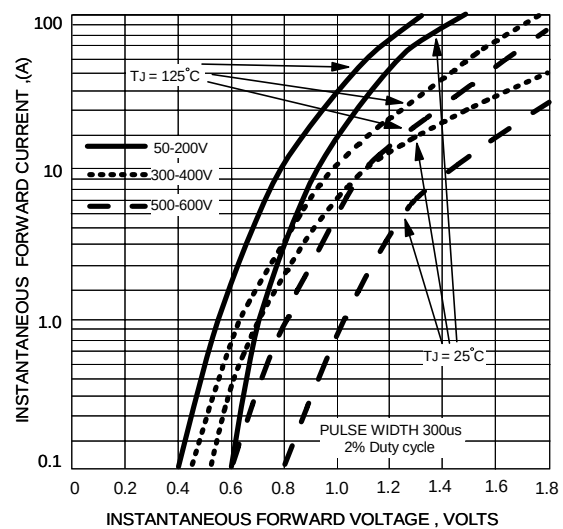


FIG.5 - TYPICAL JUNCTION CAPACITANCE

