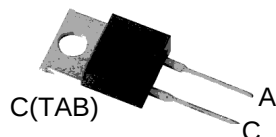


STPR805DF thru STPR820DF

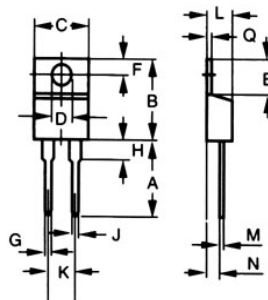
Ultra Fast Recovery Diodes



A=Anode, C=Cathode, TAB=Cathode

	V_{RRM} V	V_{RMS} V	V_{DC} V
STPR805DF	50	35	50
STPR810DF	100	70	100
STPR815DF	150	105	150
STPR820DF	200	140	200

Dimensions TO-220AC



Dim.	Inches Min.	Inches Max.	Millimeter Min.	Millimeter Max.
A	0.500	0.580	12.70	14.73
B	0.560	0.650	14.23	16.51
C	0.380	0.420	9.66	10.66
D	0.139	0.161	3.54	4.08
E	2.300	0.420	5.85	6.85
F	0.100	0.135	2.54	3.42
G	0.045	0.070	1.15	1.77
H	-	0.250	-	6.35
J	0.025	0.035	0.64	0.89
K	0.190	0.210	4.83	5.33
L	0.140	0.190	3.56	4.82
M	0.015	0.022	0.38	0.56
N	0.080	0.115	2.04	2.49
Q	0.025	0.055	0.64	1.39

Symbol	Characteristics	Maximum Ratings	Unit
I_{AV}	Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	8.0	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	0.95	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 (Note 1)	110	pF
T_{RR}	Maximum Reverse Recovery Time (Note 2)	35	ns
$R_{\theta JC}$	Typical Thermal Resistance (Note 3)	2.5	$^\circ\text{C/W}$
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-220AC molded plastic
- * Polarity: As marked on the body
- * Weight: 0.08 ounces, 2.24 grams
- * Mounting position: Any



STPR805DF thru STPR820DF

Ultra Fast Recovery Diodes

FIG.1 - FORWARD CURRENT DERATING CURVE

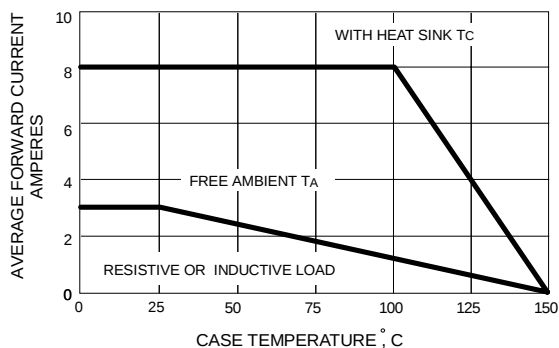


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

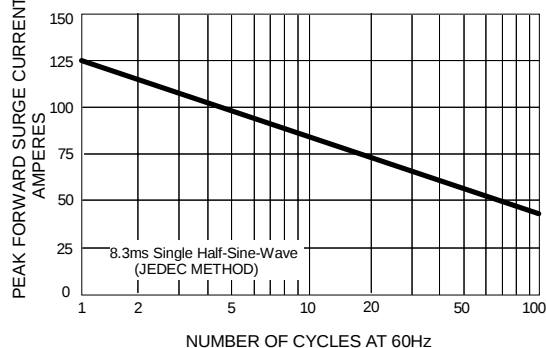


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

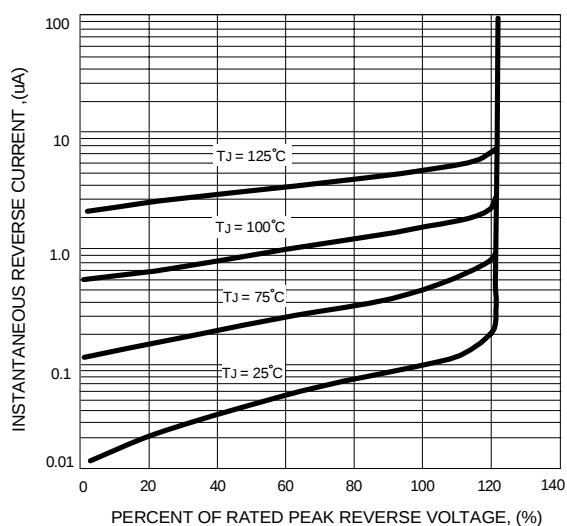


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

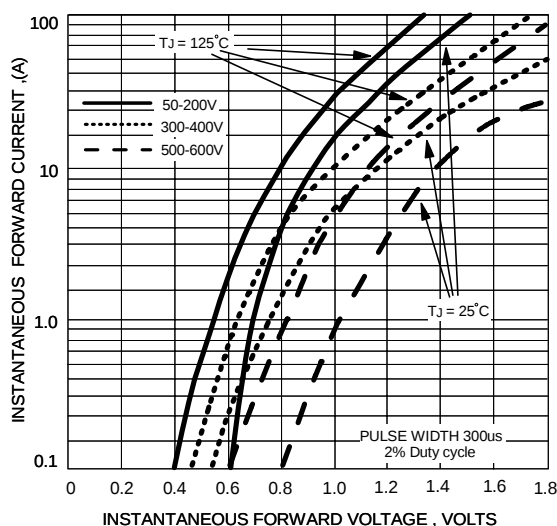


FIG.5 - TYPICAL JUNCTION CAPACITANCE

