

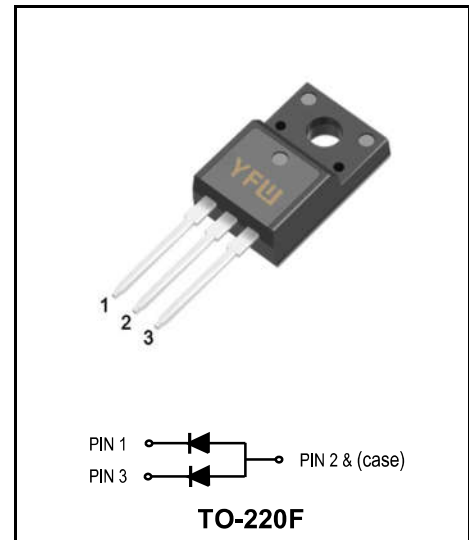
Fast Recovery Rectifiers

Reverse Voltage - 1000V

Forward Current - 10A

FEATURES

- Glass passivated chip junctions
- Low reverse current operation
- High Junction Temperature
- Fast recovery time for switching
- High Forward Surge Capability
- Lead free in compliance with EU RoHS 2011/65/EU directive



MECHANICAL DATA

- Circuit figure: Common Anode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

RATINGS	SYMBOL	Value	Units
Maximum repetitive reverse voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Maximum average forward current per device per diode	$I_{AV}$	10 5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150	A
Typical thermal resistance per diode (Note 1)	$R_{\theta-JC}$	4.0	°C/W
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 ~ +150	°C
<b>CHARACTERISTICS</b>			
Maximum forward voltage per leg at 5 A	$V_F$	1.3	V
Maximum average reverse current at rated DC blocking voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	10 250	$\mu\text{A}$
Maximum reverse recovery time (Note 2)	$T_{RR}$	500	nS

Notes: 1. Thermal resistance from junction to case.  
2. Test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .

**Ratings And Characteristic Curves**

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

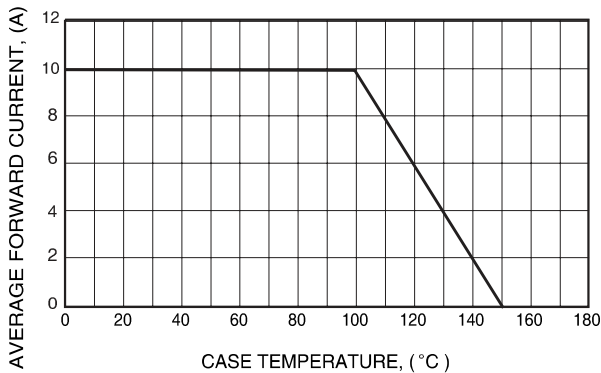


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

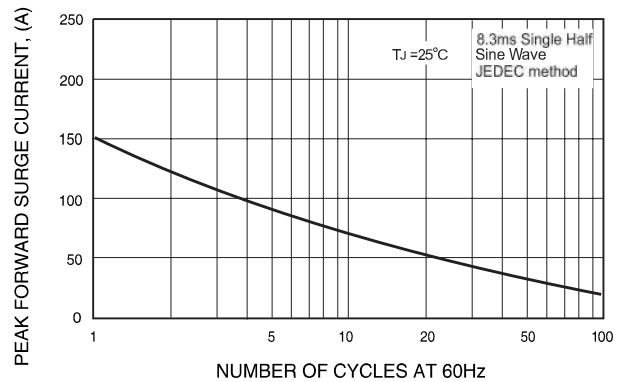


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

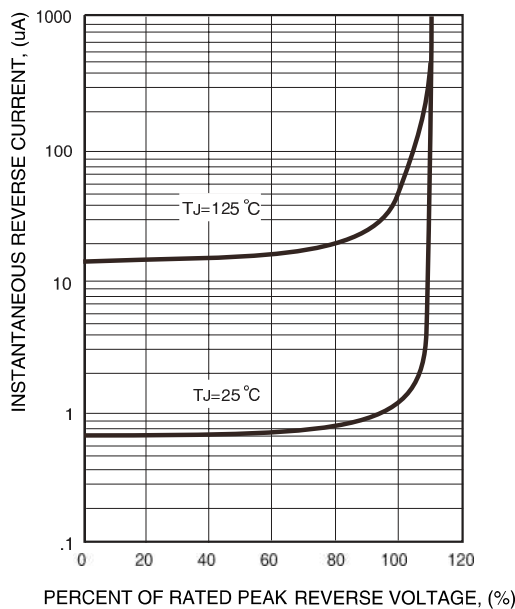


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

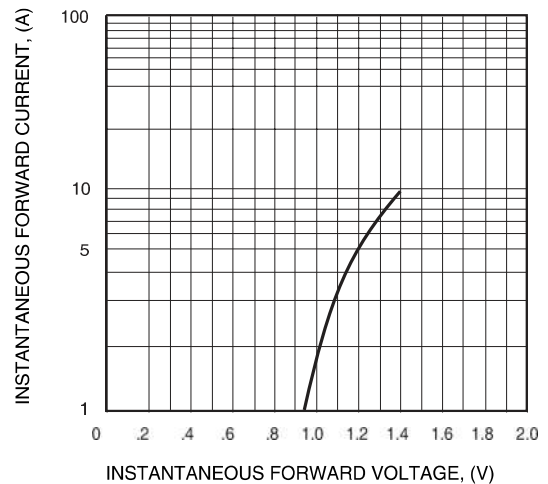
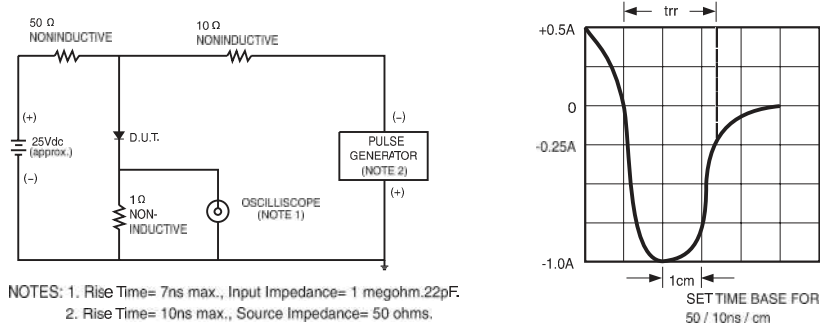
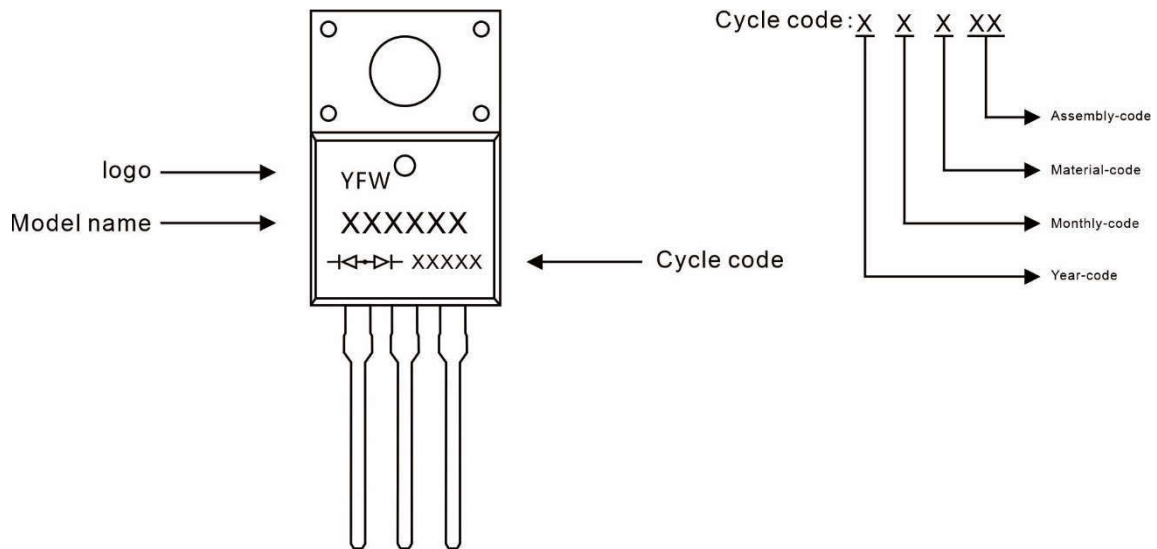


FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



**Marking Diagram**



**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
FR10100DFR	TO-220F	0.06oz(1.74g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

**Package Dimensions**

**TO-220F**

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	13.50	13.90	0.531	0.547
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

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