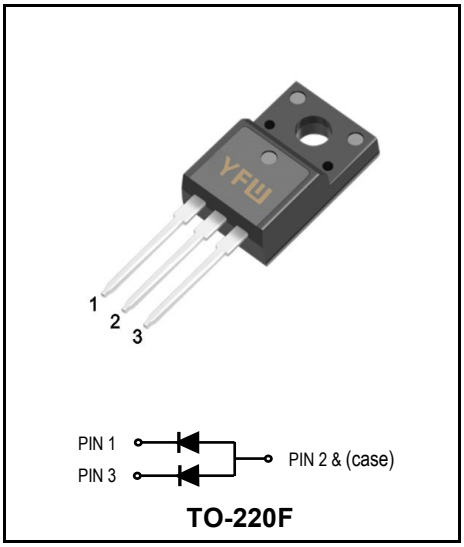
Super Fast Rectifiers

Reverse Voltage - 300V

Forward Current - 20A



TO-220F

FEATURES

- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- 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℃)

RATINGS	SYMBOL	Value	Units
Maximum repetitive reverse voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC blocking voltage	V_{DC}	300	V
Maximum average forward current	I_{AV}	20	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Typical thermal resistance per diode(Note 1)	$R_{\theta-JC}$	4.0	℃/W
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 ~ +150	°C
CHARACTERISTICS			
Typical forward voltage per leg at 10A	V_F	1.20	V
Maximum average reverse current at rated DC blocking voltage T_J=25°C T_J=125°C	I_R	5 250	μA
Typical reverse recovery time(Note 2)	T_{RR}	35	nS

Notes: 1. Thermal resistance from junction to case.
2. Test conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

Ratings And Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

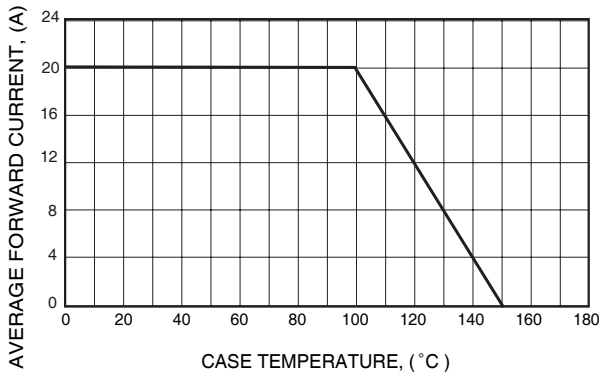


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

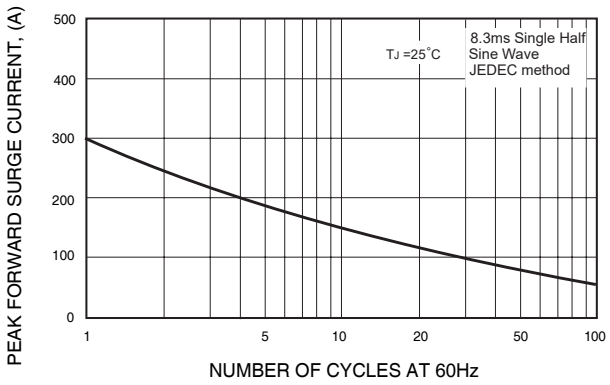


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

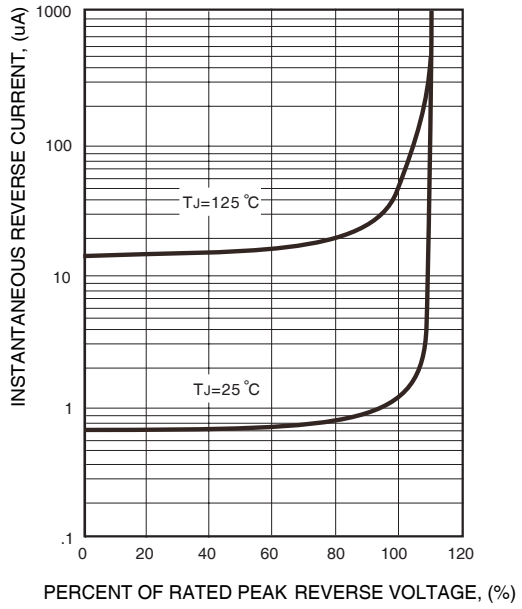


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

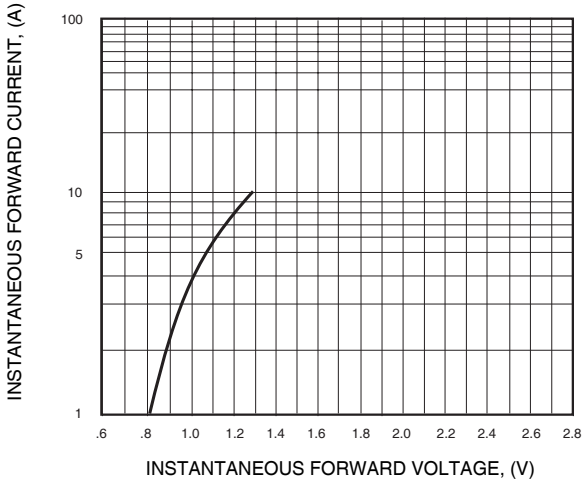
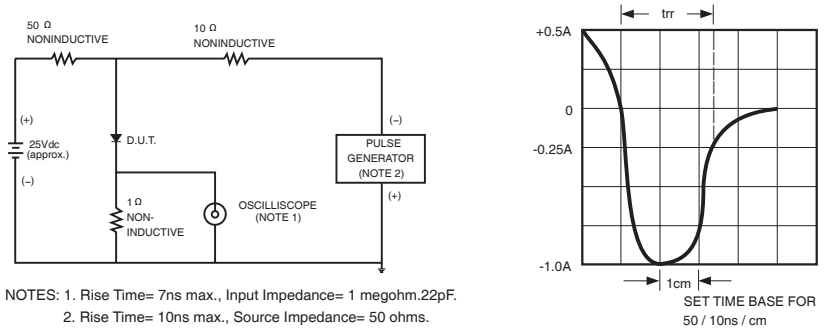
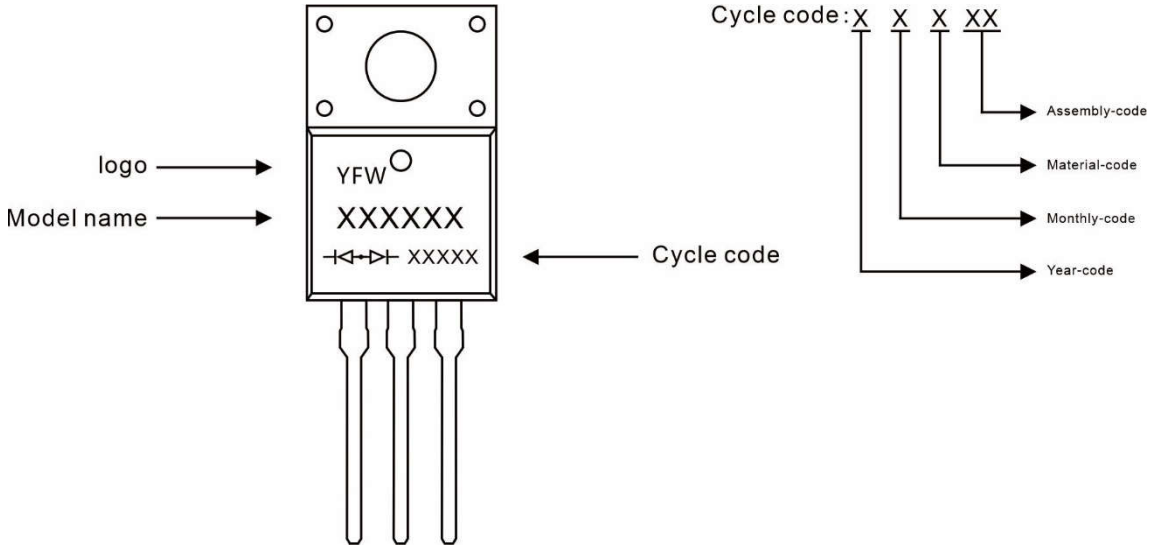


FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

Marking Diagram

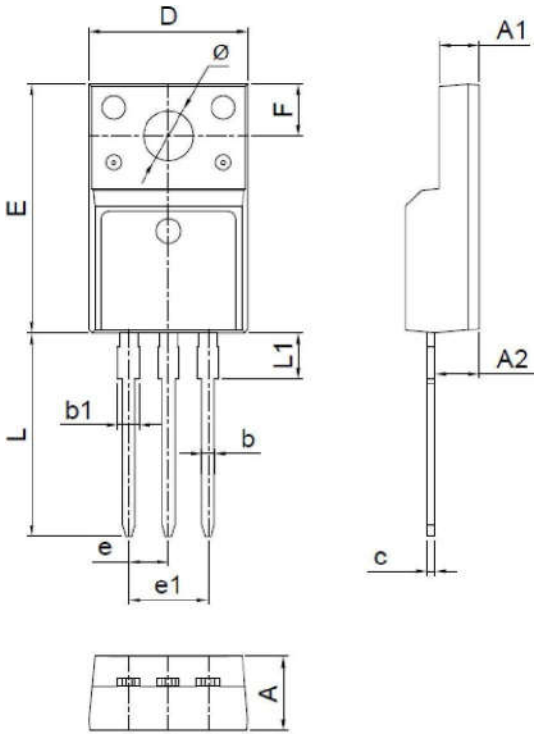


Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR2030DFR	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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