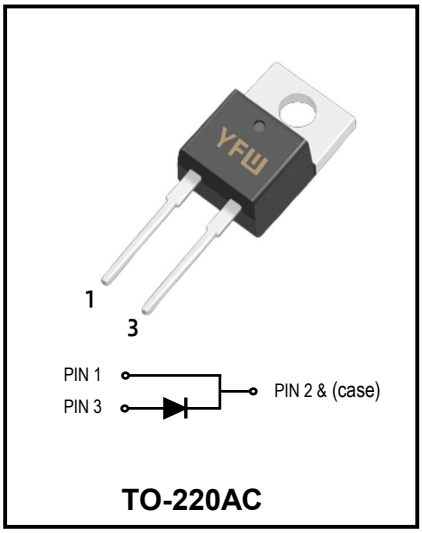
Super Fast Rectifiers

Reverse Voltage - 200V

Forward Current - 8A



TO-220AC

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: Single positive
- 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}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forward current	I_{AV}	8	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125	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 8A	V_F	1.0	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: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

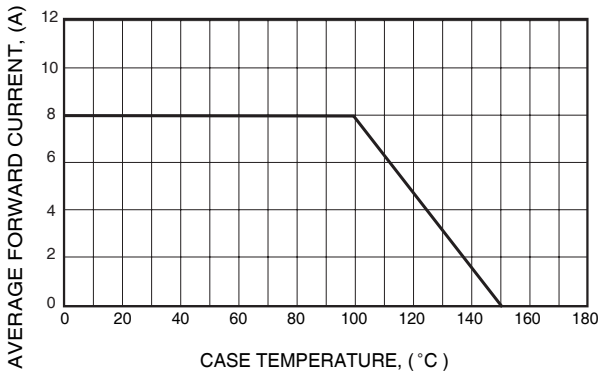


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

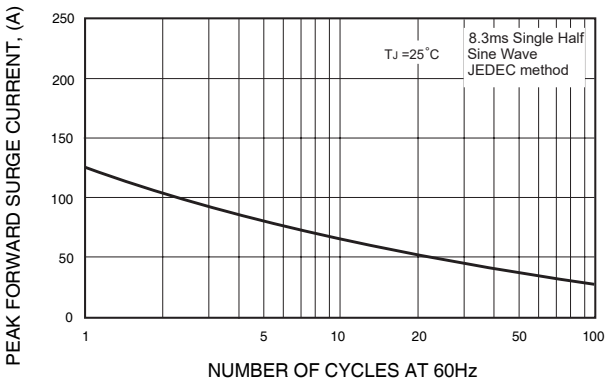


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

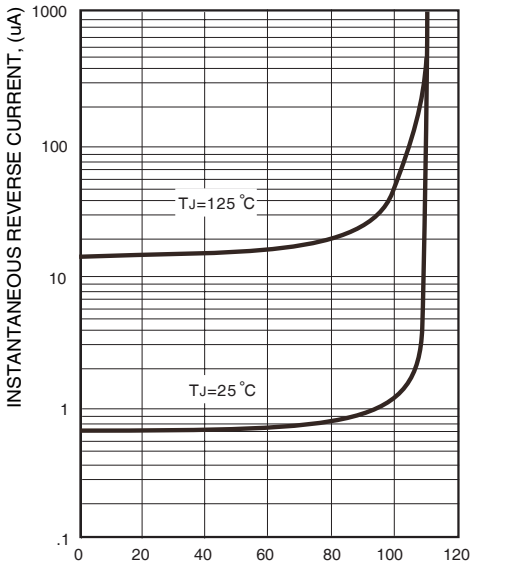


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

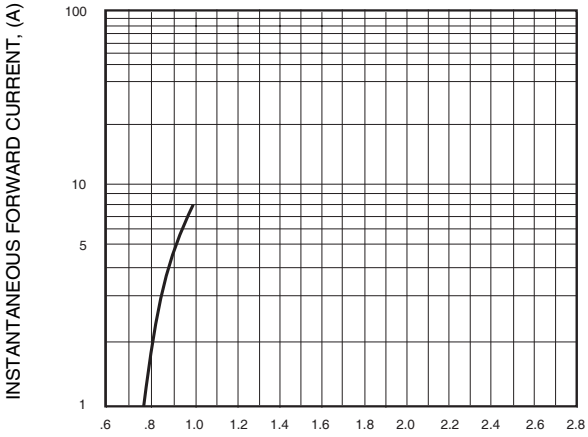
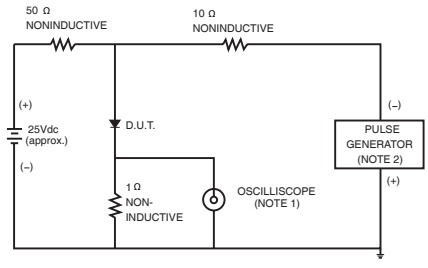
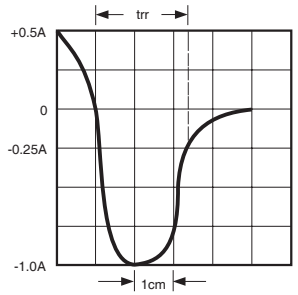


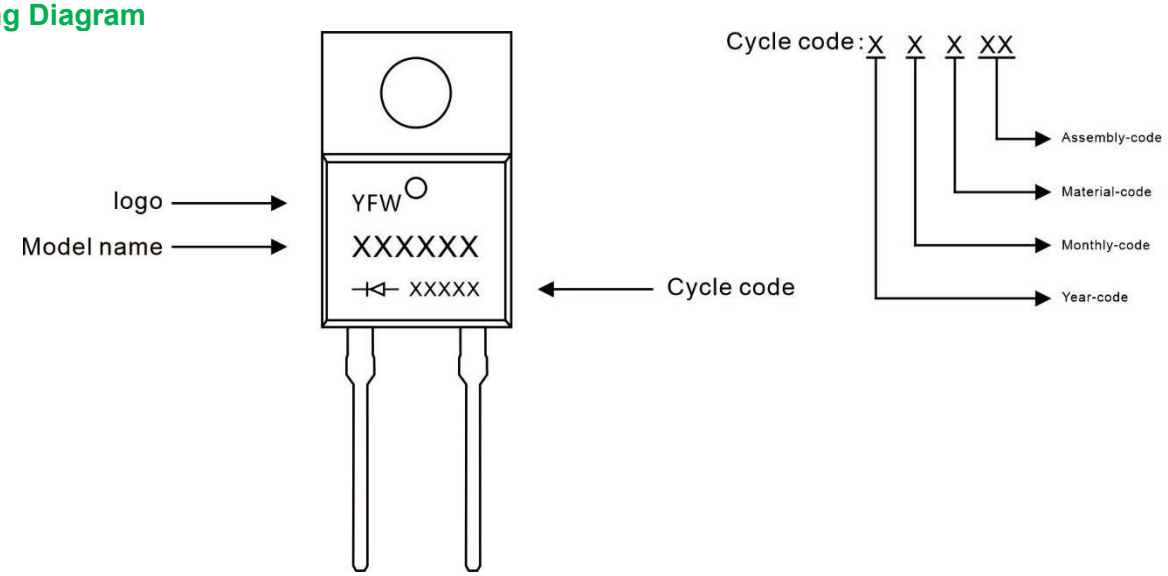
FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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



Marking Diagram

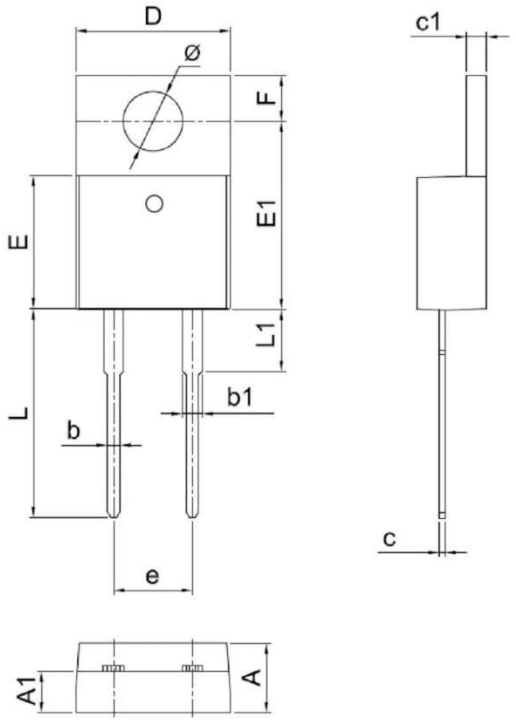


Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR820DA	TO-220AC	0.067oz(1.9g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220AC



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.34	4.67	0.171	0.184
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156

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