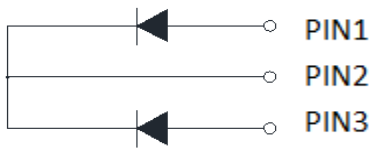
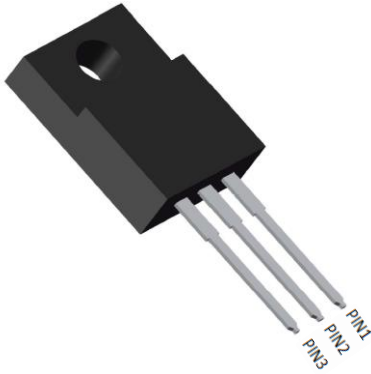


Ultra-Fast Recovery Diodes 15A*2 FRED



Features

- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** ITO-220AB
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■ Maximum Ratings (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR3060FCT
Device marking code			MUR3060FCT
Repetitive Peak Reverse Voltage	VRRM	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1)	I _O	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25°C	I _{FSM}	A	150
Current Squared Time @ 1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	93
Storage Temperature	T _{stg}	°C	-55 ~ +175
Junction Temperature	T _j	°C	-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	98
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8



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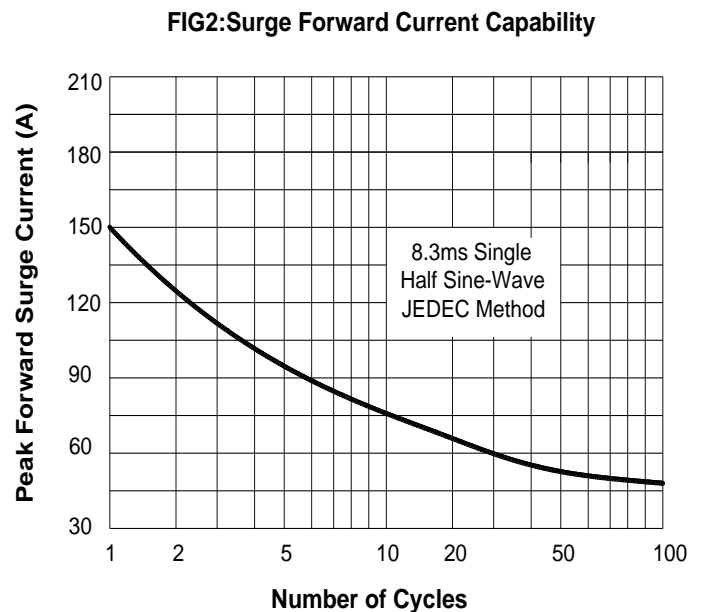
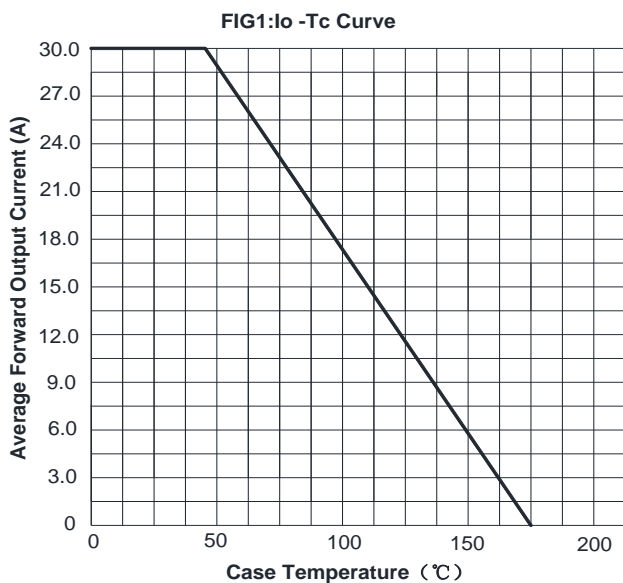
■ Electrical Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max	
Instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =15.0A @ T _j =25°C	-	1.45	1.6	
			I _{FM} =15.0A @ T _j =150°C	-	1.25	1.4	
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	μA	V _{RM} =V _{RRM} T _j =25°C	-	-	5.0	
	I _{RRM2}		V _{RM} =V _{RRM} T _j =150°C	-	30	200	
Reverse Recovery Time	T _{RR}	ns	I _F =0.5A I _{RM} =1A I _{RR} =0.25A T _j =25°C	-	26	35	
			T _j =25°C	-	115	-	
			T _j =125°C	-	200	-	
Peak recovery current	I _{RRM}	A	I _F =15A di/dt=-200A/μs V _{RM} =200V	T _j =25°C	-	5.0	-
				T _j =125°C	-	10.5	-
Reverse recovery charge	Q _{rr}	nC	I _F =15A di/dt=-200A/μs V _{RM} =200V	T _j =25°C	-	285	-
				T _j =125°C	-	1000	-

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR3060FCT	
Thermal Resistance	Between junction and case	R _{θJ-C}	°CW	4.0
	Between junction and Air	R _{θJ-A}	°CW	50

■ Characteristics(Typical)





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FIG3: Forward Voltage

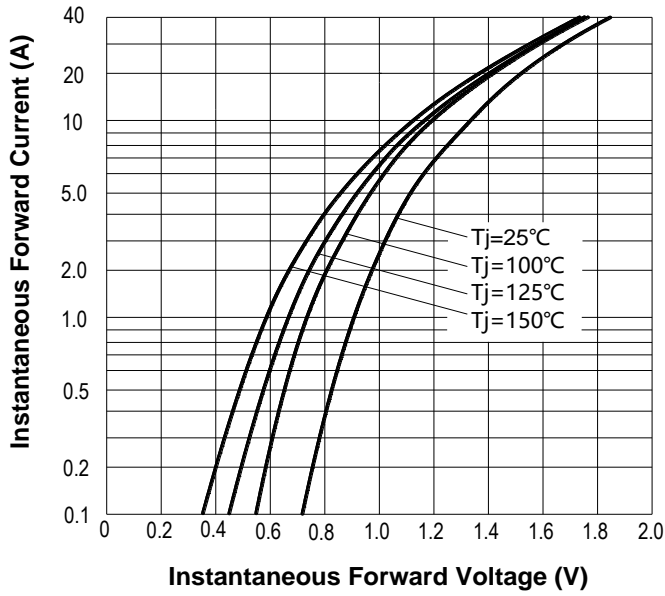


FIG.4: Instantaneous Reverse Characteristics

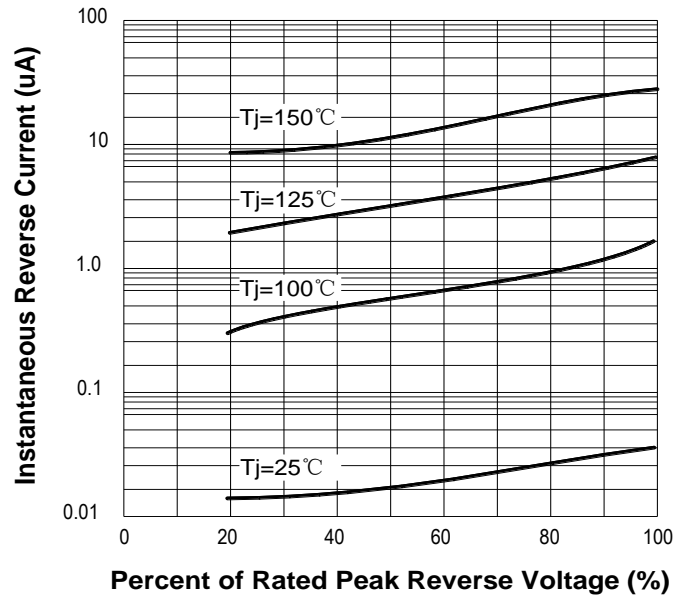
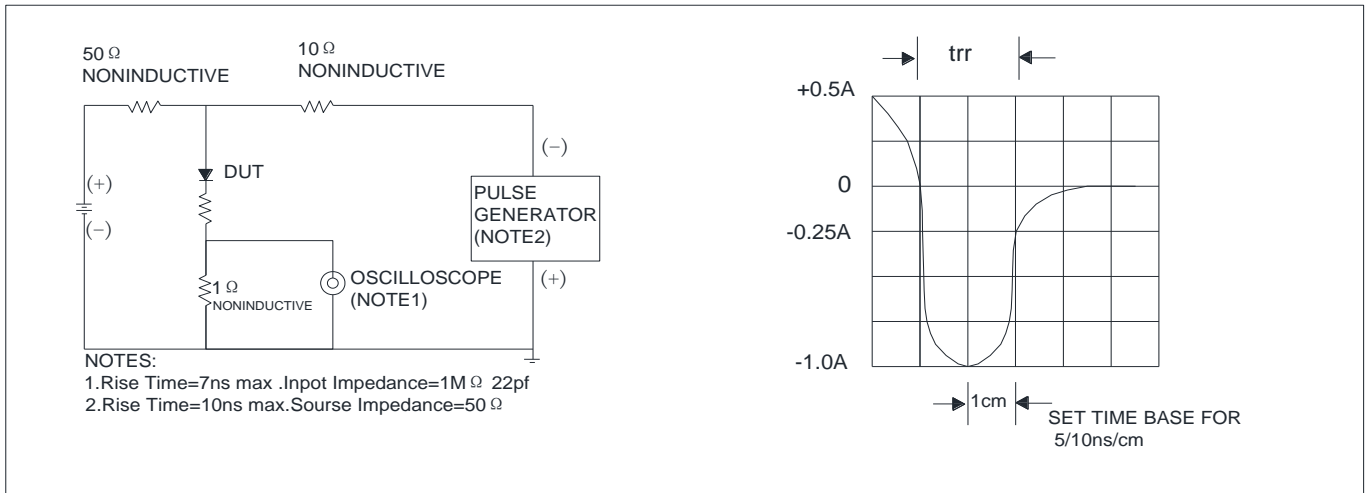


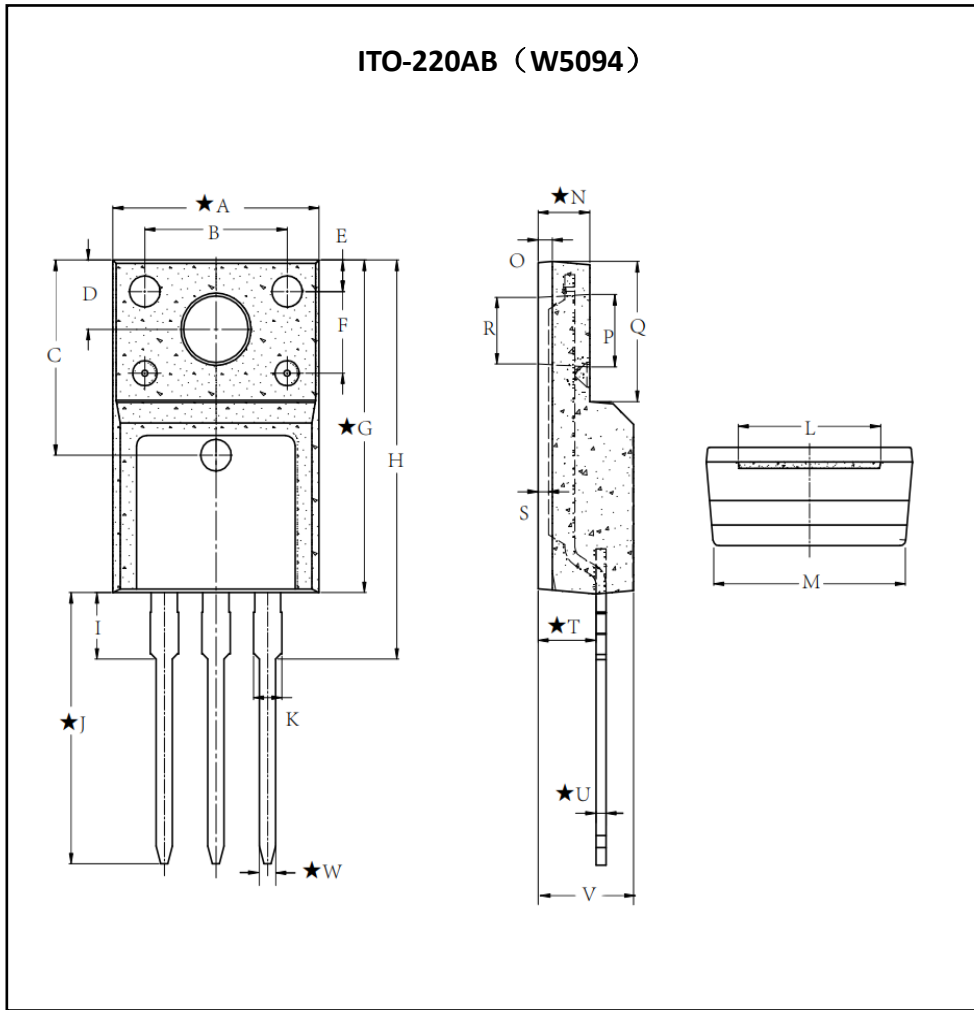
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





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■Outline Dimensions



ITO-220AB		
Dim	Min	Max
A	10.03	10.23
B	6.9	7.1
C	9.21	9.41
D	3.2	3.4
E	1.4	1.6
F	3.8	4.0
G	15.72	16.02
H	TYP 19.05	
I	TYP 3.18	
J	12.65	13.25
K	1.3	1.5
L	6.5	7.5
M	9.23	9.63
N	2.44	2.64
O	TYP 0.7	
P	3.35	3.55
Q	6.58	6.78
R	3.08	3.28
S	TYP 0.52	
T	2.75	2.95
U	0.4	0.6
V	4.5	4.9
W	0.71	0.91



MUR3060FCT-B1-W5094HF

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