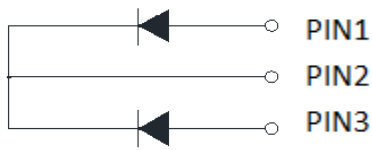
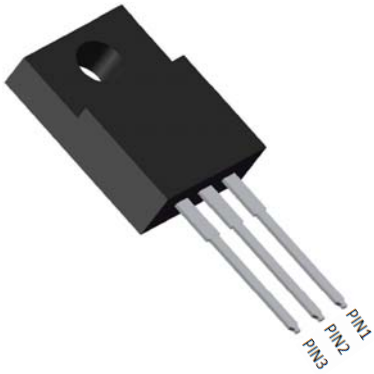


## Ultra-Fast Recovery Diodes 15A\*2 FRED



### 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<sub>j</sub>=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 <sub>c</sub> (FIG.1)	I <sub>O</sub>	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	150
Current Squared Time @1ms≤t≤8.3ms T <sub>j</sub> =25°C,	I <sup>2</sup> t	A <sup>2</sup> s	93
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +175
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +175
Typical Junction capacitance @4V,1MHz	C <sub>j</sub>	pF	98
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8



# MUR3060FCT

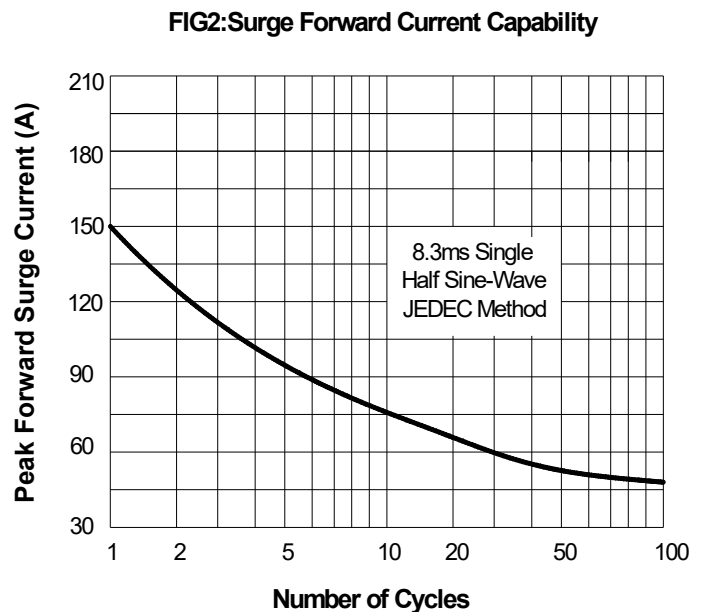
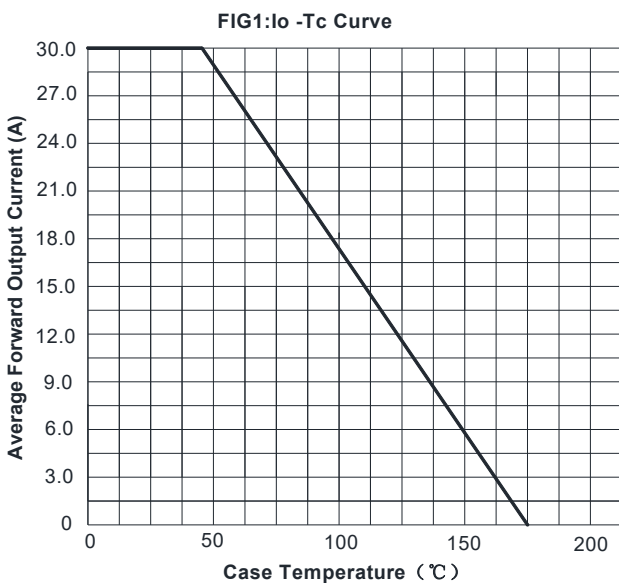
## ■ Electrical Characteristics (T<sub>j</sub>=25°C Unless otherwise specified)

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

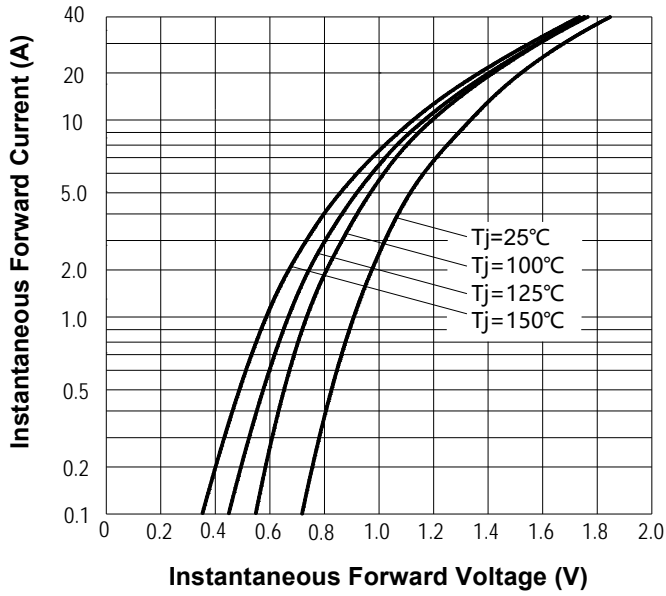
## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR3060FCT	
Thermal Resistance	Between junction and case	R <sub>θJ-C</sub>	°CW	4.0
	Between junction and Air	R <sub>θJ-A</sub>	°CW	50

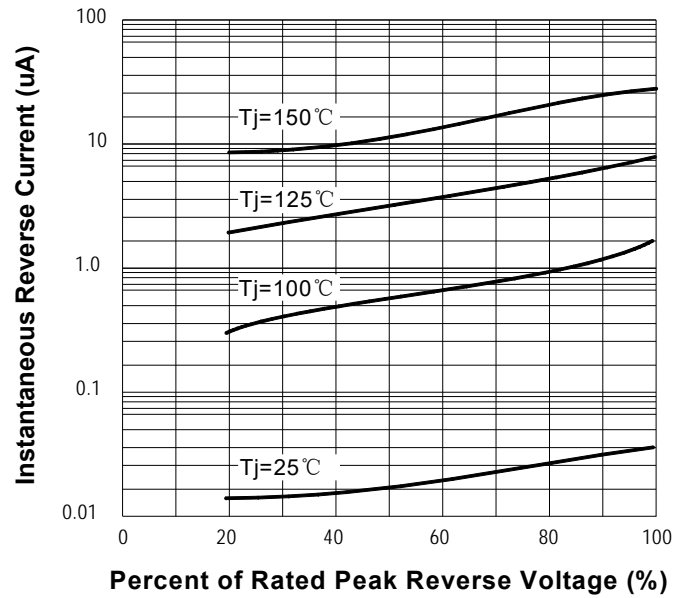
## ■ Characteristics(Typical)



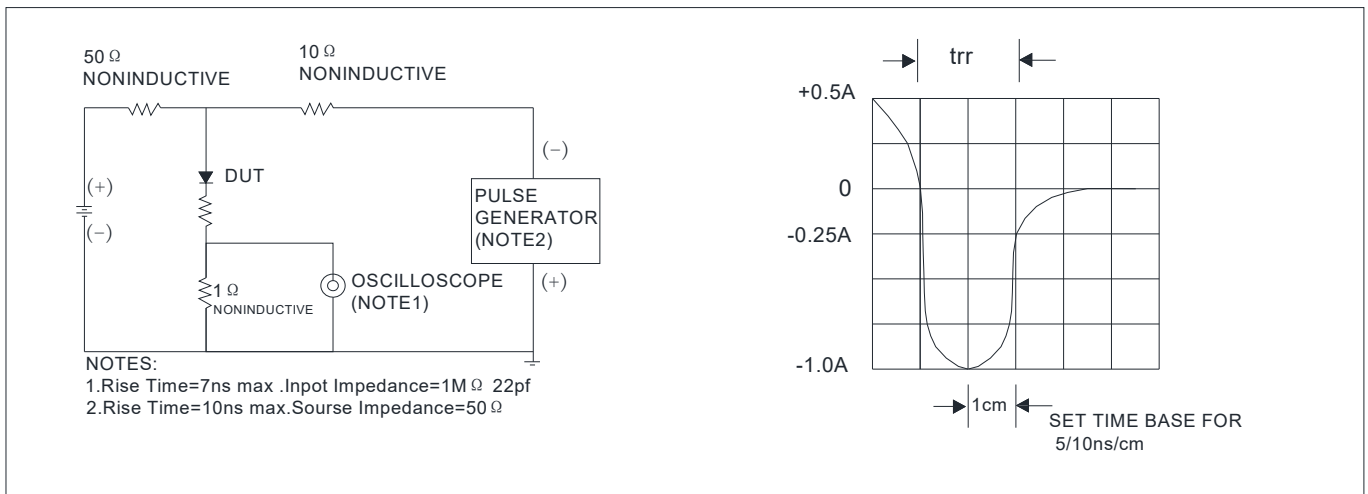
**FIG3: Forward Voltage**



**FIG.4: Instantaneous Reverse Characteristics**



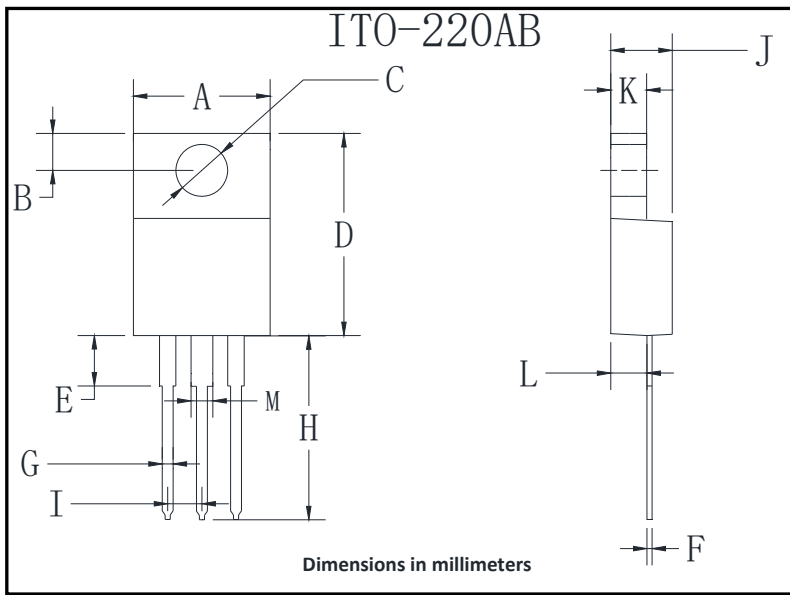
**FIG.5: Diagram of circuit and Testing wave form of reverse recovery time**





# MUR3060FCT

## ■ Outline Dimensions



ITO-220AB		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.05	3.95
F	0.45	0.75
G	0.45	0.75
H	13.4	14.2
I	2.35	2.75
J	4.3	4.8
K	2.58	2.82
L	2.58	2.82
M	1.47	1.77



# MUR3060FCT

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