

Ultra-Fast Recovery Diodes 8A*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:** TO-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 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MUR1660CT
Device marking code			MUR1660CT
Repetitive Peak Reverse Voltage	V _{RRM}	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1)	I _O	A	16
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25	I _{FSM}	A	100
Current Squared Time @1ms≤t≤8.3ms T _j =25	I ² t	A ² s	41
Storage Temperature	T _{stg}		-55 ~ +175
Junction Temperature	T _j		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	40



MUR1660CT

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	IFM=8.0A @Tj=25		-	1.45	1.6
			IFM=8.0A @Tj=150			1.15	1.3
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	VRM=VRRM Tj=25		-	-	5.0
	I_{RRM2}		VRM=VRRM Tj=150		-	40	200
Reverse Recovery Time	Trr	ns	If=0.5A I _{RM} =1A I _{RR} =0.25A Tj=25		-	25	35
			Tj=25	IF=8A di/dt=-200A/us VRM=200V	-	57.0	-
			Tj=125		-	90.5	-
Peak recovery current	I _{RRM}	A	Tj=25		-	3.45	-
			Tj=125		-	6.25	-
Reverse recovery charge	Qrr	nC	Tj=25		-	99.1	-
			Tj=125		-	262.2	-

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FIG3: Forward Voltage

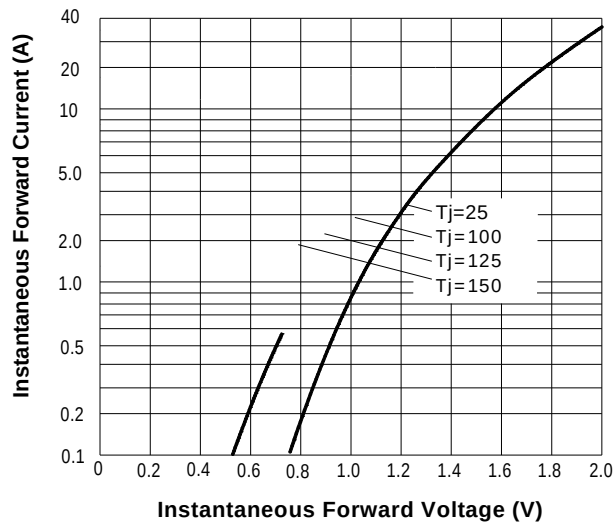
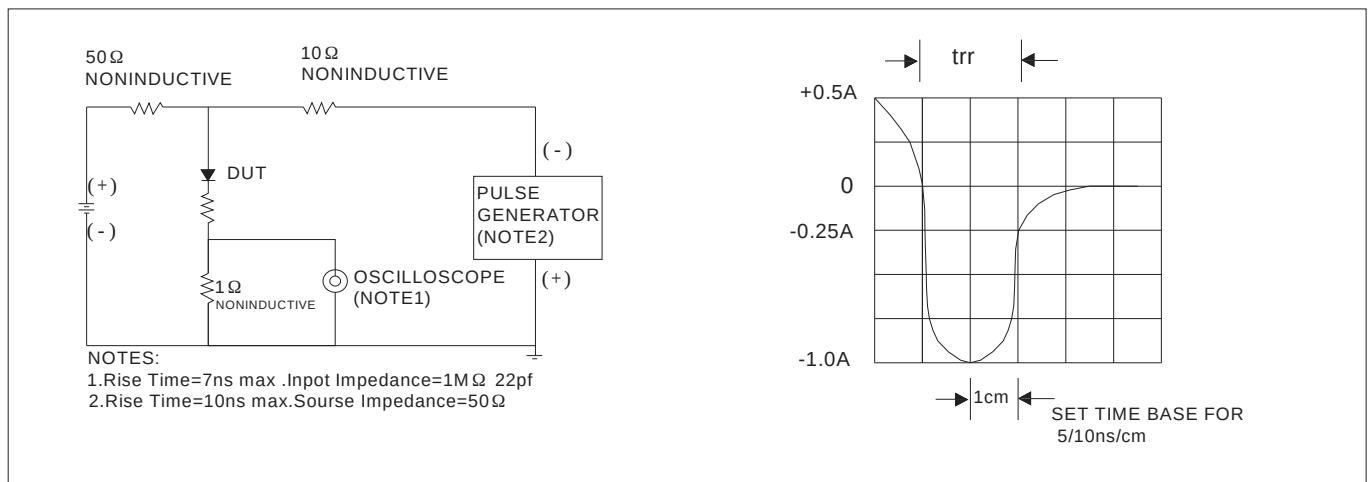


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





■Outline Dimensions

