

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	VRRM	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	$I_{FM}=8.0A$ @ $T_j=25$	-	1.45	1.6	
			$I_{FM}=8.0A$ @ $T_j=150$		1.15	1.3	
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ $T_j=25$	-	-	5.0	
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_j=150$	-	40	200	
Reverse Recovery Time	T_{rr}	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25$	-	25	35	
			$T_j=25$	-	57.0	-	
			$T_j=125$	-	90.5	-	
Peak recovery current	I_{RRM}	A	$T_j=25$	$I_F=8A$ $di/dt=-200A/us$ $V_{RM}=200V$	-	3.45	-
			$T_j=125$		-	6.25	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25$	-	99.1	-	
			$T_j=125$	-	262.2	-	

FIG3: Forward Voltage

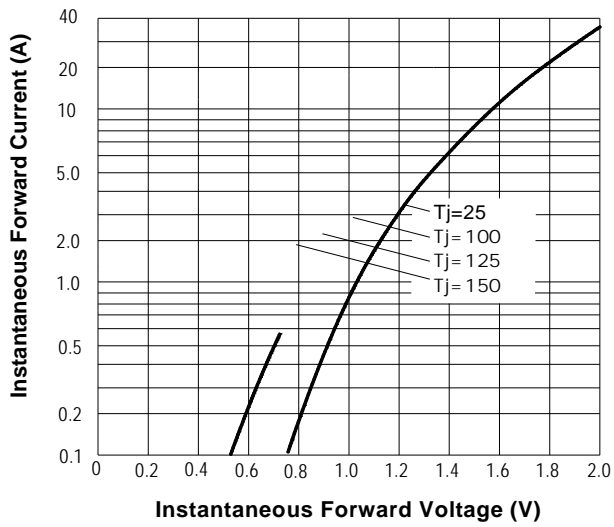
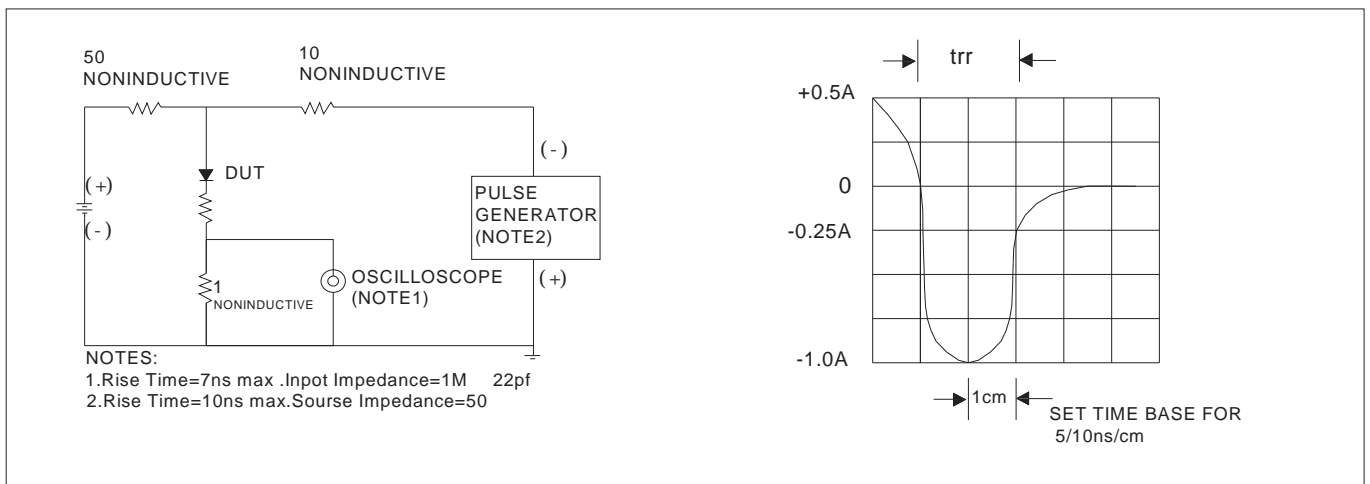


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





Outline Dimensions

