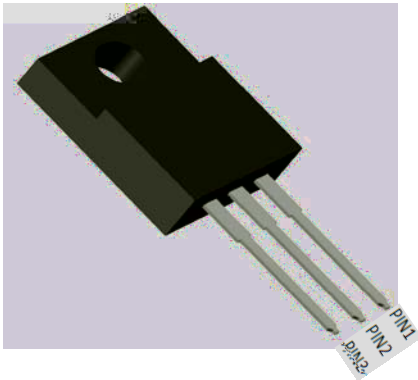


Ultra-Fast Recovery Diodes 5A*2 FRED



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	MUR1020FCT
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Device marking code

MUR1020FCT
5020 (Non-repetitive) Forward Current
@60Hz half sine-wave, 1 cycle, T_j=25 °C

	FSM	A	50
Current Squared Time @1ms≤t≤8.3ms T _j =25 °C	I ² t	A ² s	10
Storage Temperature	T _{stg}		-55 ~ +175
Junction Temperature	T _j		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	50
Mounting torque @recommend torque 5kg cm	Tor	kg cm	8

MUR1020FCT

		UNIT			Typ	Max	
Forward diode	V_{FM}	V	$I_{FM}=5.0A$ @ $T_j=25$	-	0.90	1.0	
			$I_{FM}=5.0A$ @ $T_j=150$		0.78	0.90	
	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ $T_j=25$	-	-	5	
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_j=150$	-	25	50	
	T_{rr}	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25$	-	25	35	
			$T_j=25$		17.4		
			$T_j=125$		29.4		
	I_{RRM}	A	$T_j=25$	$I_F=5A$ $di/dt=-200A/us$ $V_{RM}=100V$	-	3.11	-
$T_j=125$			-		5	M	-

FIG3: Forward Voltage

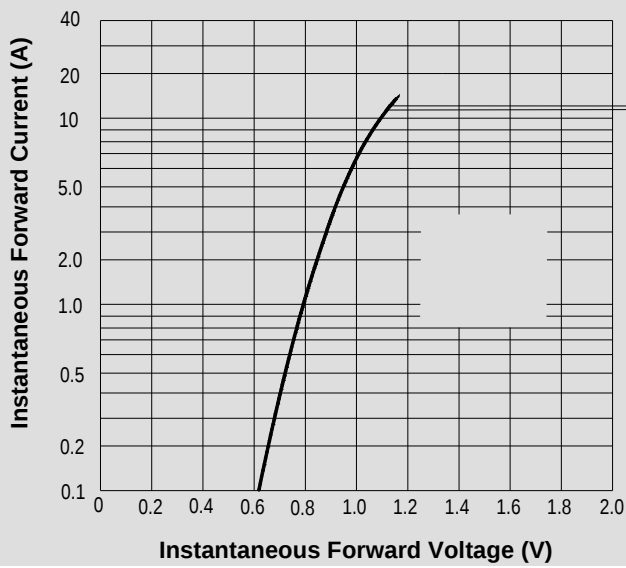


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

