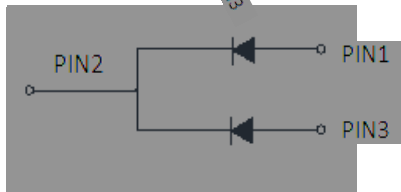
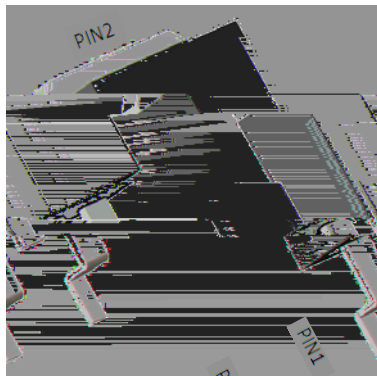


Ultra-Fast Recovery Diodes 5A*2 FRED



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:** TO-263
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			
Repetitive Peak Reverse Voltage	V _{RRM}	V	400
Average Rectified Output Current @60Hz sine wave, R-load (Figs.1)	I _O	A	10
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _s			10
Storage Temperature	T _{stg}		



MURB1040CT

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	$I_{FM}=5.0A$ @ $T_J=25$	-	1.15	1.30
			$I_{FM}=5.0A$ @ $T_J=150$		0.9	1.0
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	μA	$V_{RM}=V_{RRM}$ $T_J=25$	-	-	5.0
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_J=150$	-	25	100
Reverse Recovery Time	T_{rr}	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_J=25$	-	25	35
			$T_J=25$	-	29.5	-
			$T_J=125$	-	46.6	-
Peak recovery current	I_{RRM}	A	$T_J=25$	-	3.49	-
			$T_J=125$	-	5.71	-
Reverse recovery charge	Q_{rr}	nC	$T_J=25$	-	55.22	-
			$T_J=125$	-	130	-

■Thermal Characteristics $T_J=25$ Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MURB1040CT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}W$	2.0
Thermal Resistance	Between junction and A	$R_{\theta J-A}$	$^{\circ}W$	2

■Characteristics (Typical)

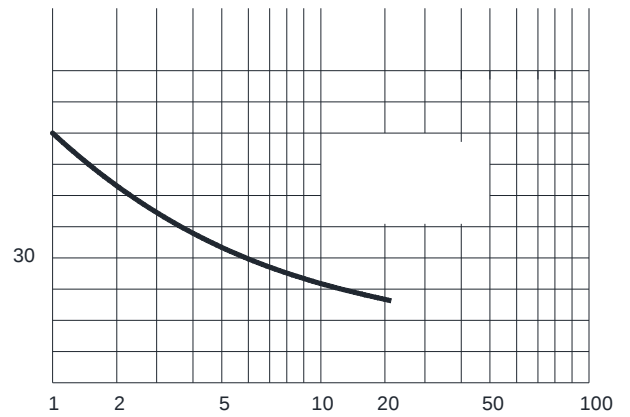
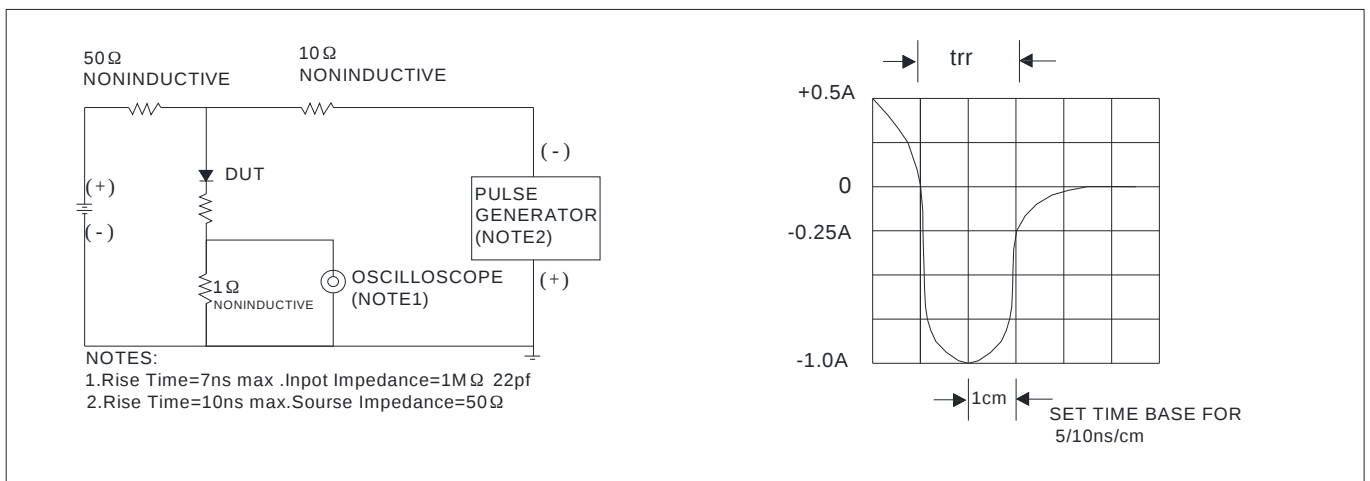


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





MURB1040CT

■Outline Dimensions

TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E		

■Suggested Pad Layout





Disclaimer

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