Ultra-Fast Recovery Diodes 10A FRED

- 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 (Tj=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MURB1020
Average Rectified Output Current @60H z sine wave , R-load , Tc(FIG.1)	**I_o**	**A**	**10**
Surge(Non-repetitive)Forward Current @60H z half sine-wave , 1 cycle , T j = 25	I_{FSM}	A	120
Current Squared Time @1ms≤t≤8.3ms Tj=25	I^2t	A^2s	60
Storage Temperature	T_{stg}		-55 ~ +175
Junction Temperature	Tj		-55 ~ +175
Typical Junction capacitance @4V,1MHz	Cj	pF	150

v(OHFWULFDO &KDUDFWHULVWLFV

3$5$0(7(5	6<0%2	81,7	7(67 &21',7,216	0LQ	7\S	0D[
,QVWDQWDQHRXV IRUZDUG YROWDJH GURS SHU GLRGH	,0	9	,0 $ #7M -			
			,0 $ #7M -			
'& UHYHUVH FXUUHQW DW UDWHG '& EORFNLQJ YROWDJH SHU GLRGH	550	XA	950 9550 7M -			
	550		950 9550 7M -			
5HYHUVH 5HFRYHU\ 7LPH	55	QV	) $50, $55 $ 7M -			
			7M -			
			7M -			
3HDN UHFRYHU\ FXUUHQW	550	$	7M -	) $ GL GW 950 9 $ XV		
			7M -			
5HYHUVH UHFRYHU\ FKDUJH		Q&	7M - 4UU			
			7M -			

v7KHUPDO &KDUDFWHULVWLFV RWKHUZLVH VSHFLILHG

3$5$0(7(5		6<0%2/	81,7	085%
7KHUPDO 5HVLVWDQFH	%HWZHHQ MXQFWLRQ DQG FDVH - :	5&		5
	%HWZHHQ MXQFWLRQ DQG $LU - :	5$		5

v2UGHULQJ ,QIRUPDWLRQ

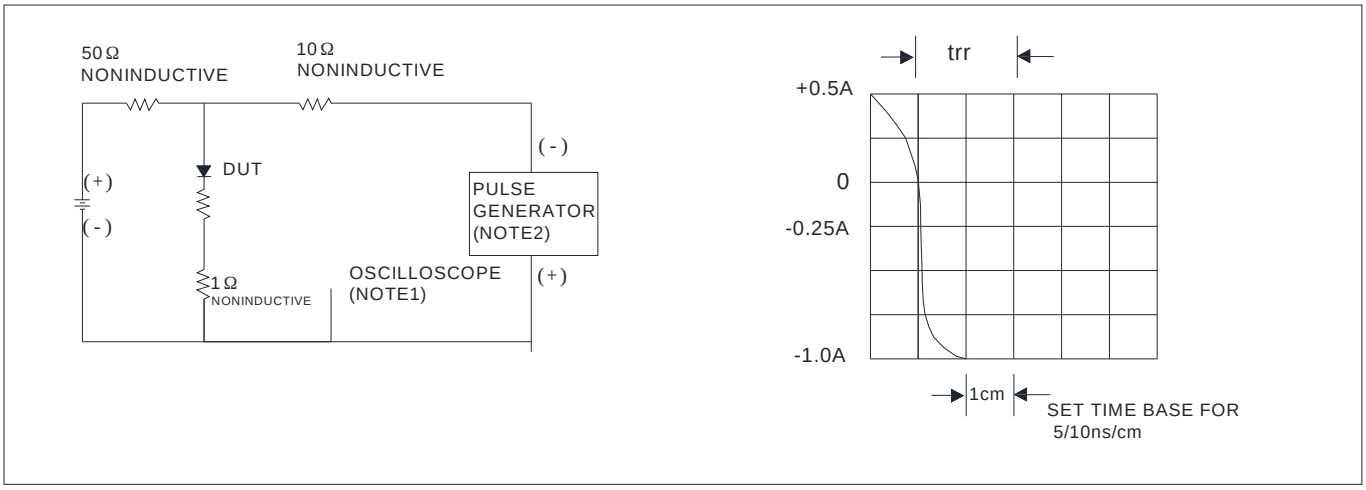
35()(5(' 3 1	81,7 :(,*+7 J	0,1,,080 3$&.$*(SFV	,11(5 %2; 48$17,7< SF	287(5 &$57 48$17,7< SF	
085%	$SSUR[LPDWH				7XEH

085%

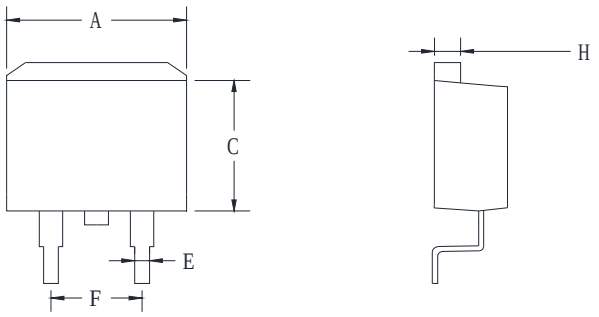
■**Characteristics** (Typical)

DUT

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



■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	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2

■ Suggested Pad Layout

Dim	Millimeters
A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	1.35

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.