

Ultra-Fast Recovery Rectifier Diodes



Features

- High frequency operation
- High surge forward current capability
- 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-252
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR560DA
Device marking code			MUR560DA
Repetitive Peak Reverse Voltage	VRRM	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T _a =25°C	I _O	A	5
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	100
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	41
Storage Temperature	T _{stg}	°C	-55 ~ +150
Junction Temperature	T _j	°C	-55 ~ +150

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR560DA
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =5.0A	1.7
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _a =25°C	10
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	500
Reverse Recovery Time	T _{rr}	ns	I _F =0.5A I _{RR} =0.25A I _{RM} =1A	35

MUR560DA

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MUR560DA
Thermal Resistance	Between junction and case	R _{θJ-C}	°C/W	5.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR560DA	Approximate 0.32	2500	2500	25000	Reel

■ Characteristics (Typical)

FIG1: I_o -T_c Curve

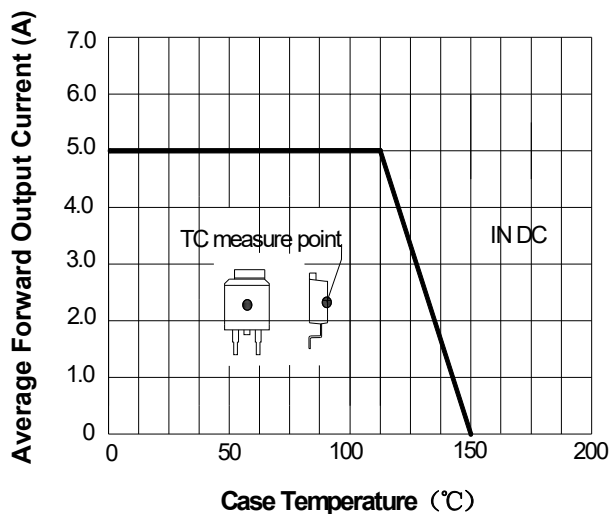


FIG2: Surge Forward Current Capability

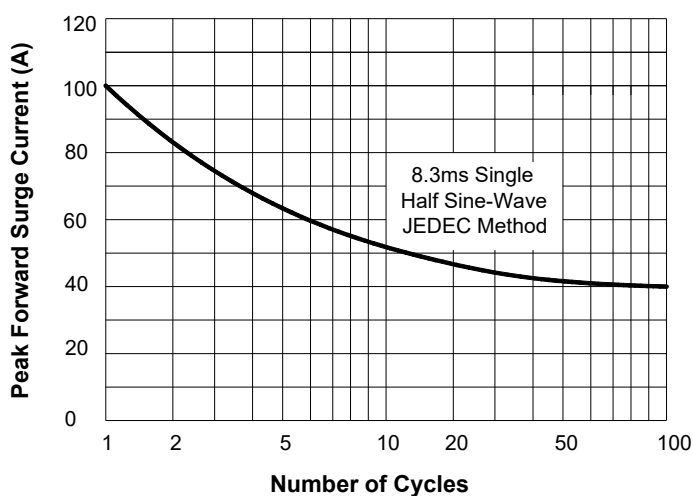


FIG3: Forward Voltage

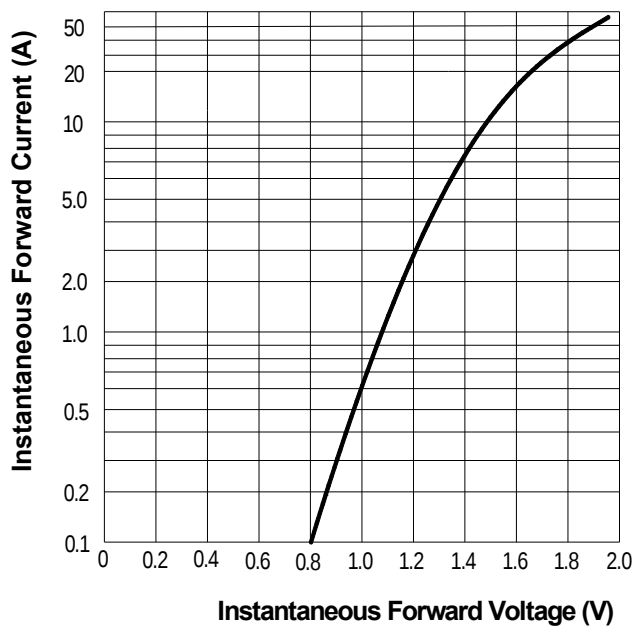


FIG4: Instantaneous Reverse Characteristics

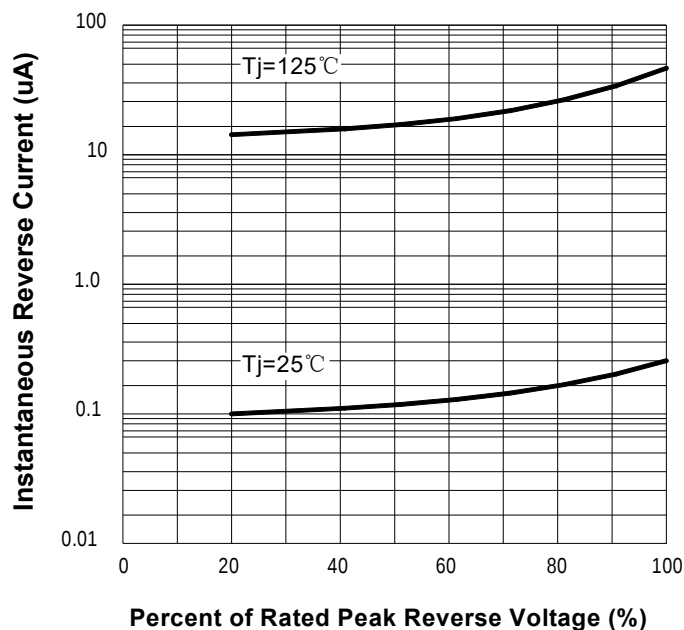
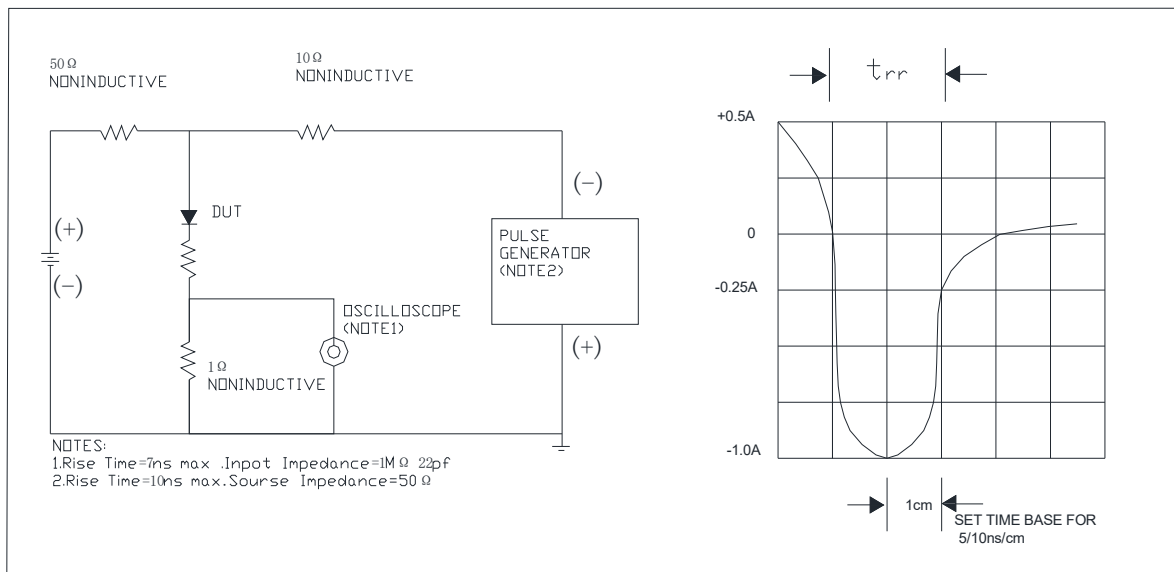
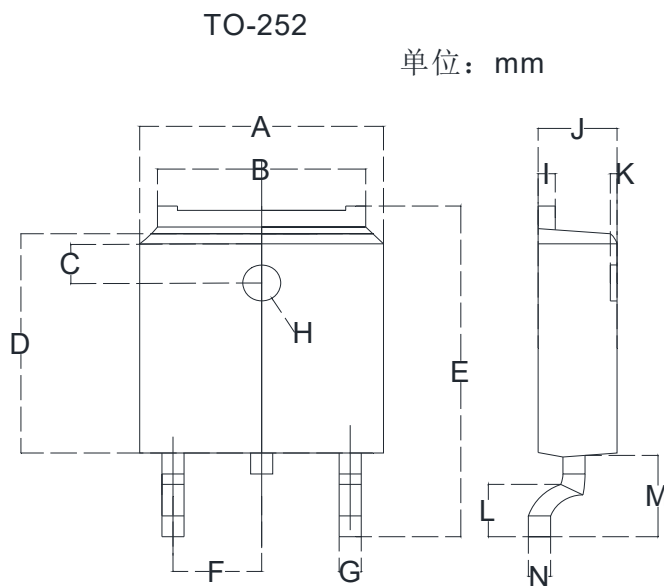


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



■Outline Dimensions



TO-252		
Dim	Min	Max
A	6.50	6.70
B	5.10	5.46
C	1.40	1.80
D	6.00	6.20
E	10.00	10.40
F	2.17	2.37
G	0.66	0.86
H	Φ 1.05	Φ 1.35
I	0.46	0.58
J	2.20	2.40
K	0	0.30
L	0.89	2.29
M	2.73	3.08
N	0.43	0.58

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