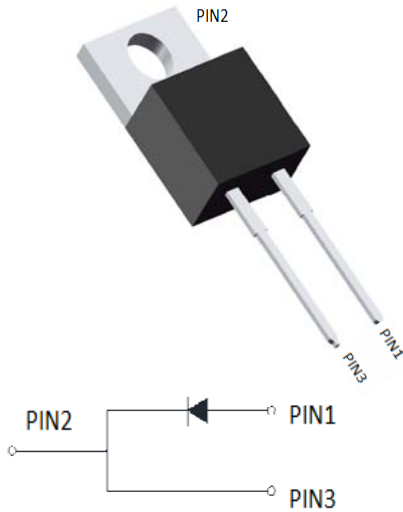


Fast Recovery Rectifier Diodes



Features

- High frequency operation
- High surge forward current capability
- Glass Passivated Chip Junction
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Passivation 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-220AC
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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURU15120
Device marking code			MURU15120
Repetitive Peak Reverse Voltage	VRRM	V	1200
Average Rectified Output Current @60Hz sine wave, R-load, $T_a=25^\circ\text{C}$	IO	A	15
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_a=25^\circ\text{C}$	IFSM	A	250
Current Squared Time @1ms≤t≤8.3ms $T_j=25^\circ\text{C}$	I ² t	A ² s	260
Storage Temperature	Tstg	°C	-55 ~ +150
Junction Temperature	Tj	°C	-55 ~ +150

■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MURU15120
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=15.0A	1.7
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	uA	VRM=VRRM $T_a=25^\circ\text{C}$	5
	IRRM2		VRM=VRRM $T_a=125^\circ\text{C}$	500
Maximum Reverse Recovery Time	Trr	ns	IF=0.5A IRRM=0.25A IRM=1A	500



MURU15120

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MURU15120
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^\circ\text{C/W}$	2.0
Thermal Resistance	Between junction and lead	$R_{\theta J-L}$	$^\circ\text{C/W}$	5.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURU15120	Approximate 1.8	50	1000	5000	Tube

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

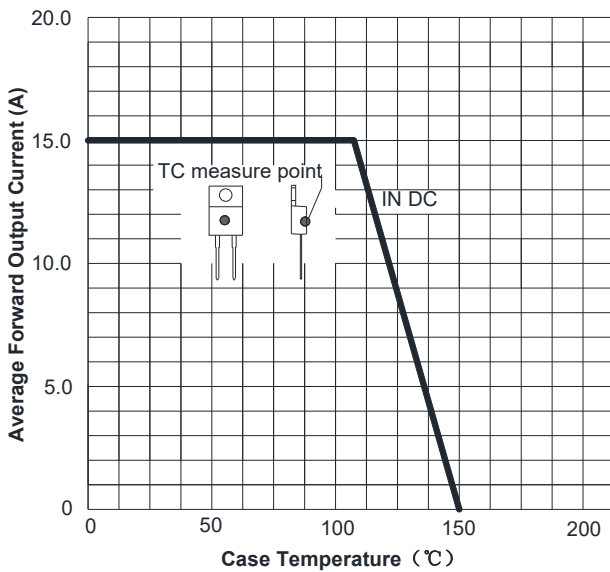


FIG2: Surge Forward Current Capability

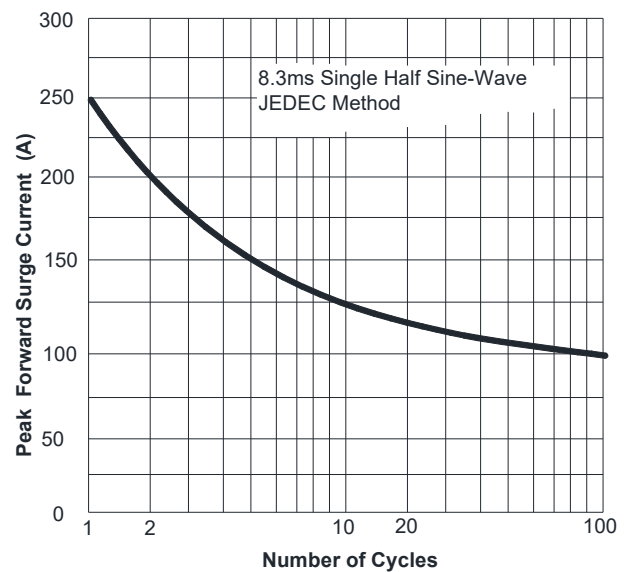


FIG3: Forward Voltage

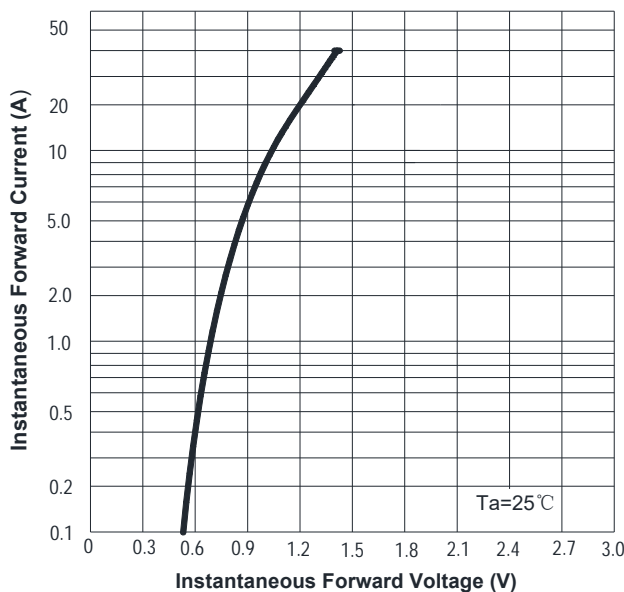


FIG4: Typical Reverse Characteristics

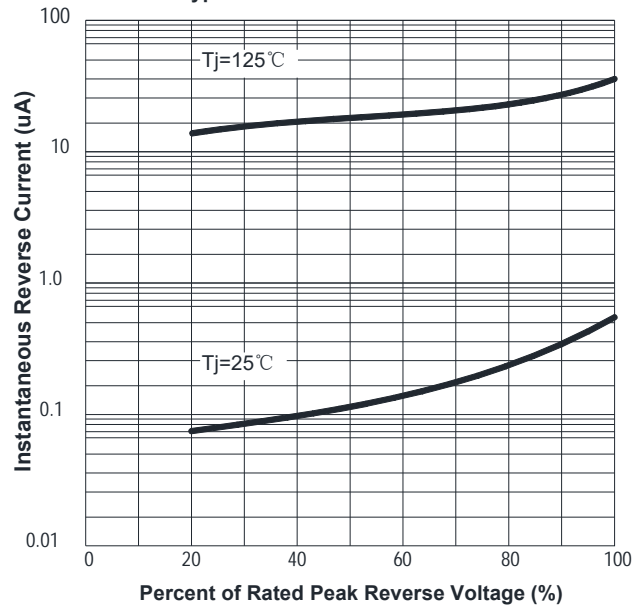
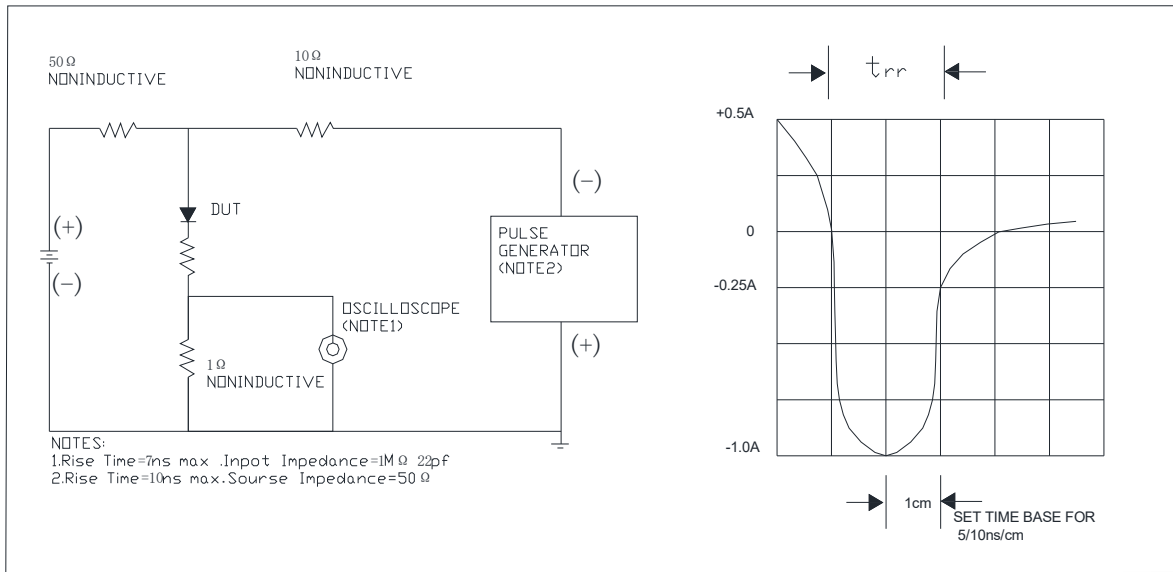
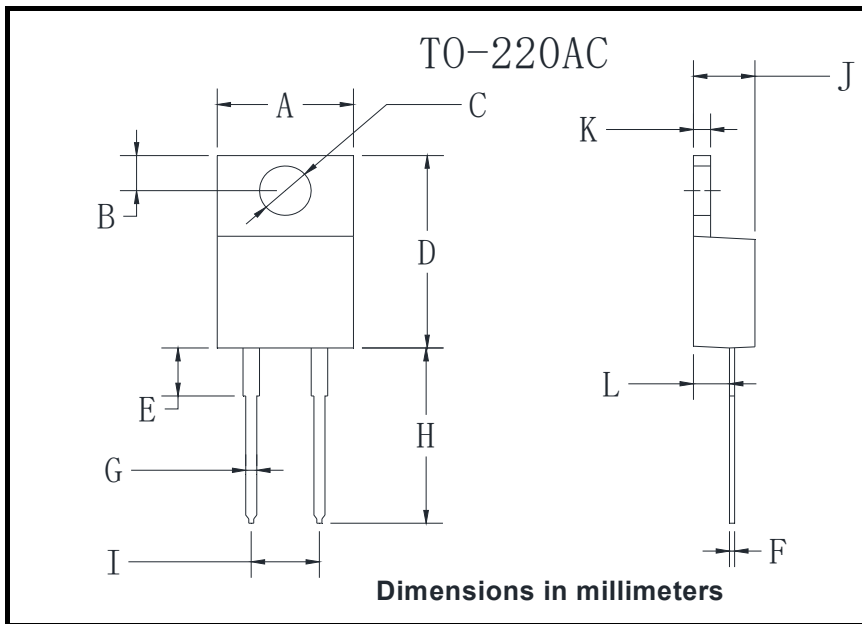


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



TO-220AC		
Dim	Min	Max
A	9.95	10.35
B	2.55	2.95
C	3.75	4.05
D	14.95	15.25
E	3.75	4.25
F	0.26	0.5
G	0.68	0.94
H	13.3	13.9
I	4.86	5.26
J	4.38	4.78
K	1.14	1.4
L	2.37	2.79



MURU15120

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