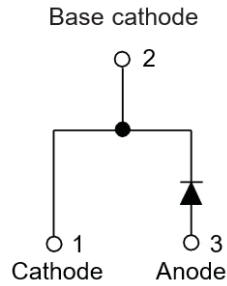


Ultra-Fast Recovery Rectifier Diodes



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
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-247AC
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 ($T_j=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURS7560PL
Device marking code			MURS7560PL
Repetitive Peak Reverse Voltage	VRRM	V	600
Average Rectified Output Current @60Hz half sine-wave, R-load, T_c (FIG.1)	I_o	A	75
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	540
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$	I^2t	A^2s .	1210
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +175
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~ +175
Typical Junction capacitance @4V, 1MHz	C_j	pF	172



MURS7560PL-B1-W5094HF

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
instantaneous forward voltage drop per diode	VFM	V	IFM=75.0A Tj=25°C	-	2.1	2.5
			IFM=75.0A Tj=125°C		1.7	2.1
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{R_{RM}} Tj=25°C	-	-	5.0
	I _{RRM2}		V _{RM} =V _{R_{RM}} Tj=125°C	-	-	200
Reverse Recovery Time	T _{rr}	ns	I _F =0.5A I _{RM} =1A I _{RR} =0.25A Tj=25°C	-	33	50
			Tj=25°C	-	43.8	
			Tj=125°C	-	53.6	
Peak recovery current	I _{RRM}	A	Tj=25°C	-	11.7	
			Tj=125°C	-	28.1	
Reverse recovery charge	Q _{rr}	nC	Tj=25°C	-	221	
			Tj=125°C	-	1014	

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

PARAMETER	SYMBOL	UNIT	MURS7560PL	
Thermal Resistance	Between junction and case	R _{θJ-C}	°CW	1
	Between junction and Air	R _{θJ-A}	°CW	40

■Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURS7560PL	Approximate 6.0	30	360	1800	Tube



■ Characteristics (Typical)

FIG1: I_o - T_c Curve

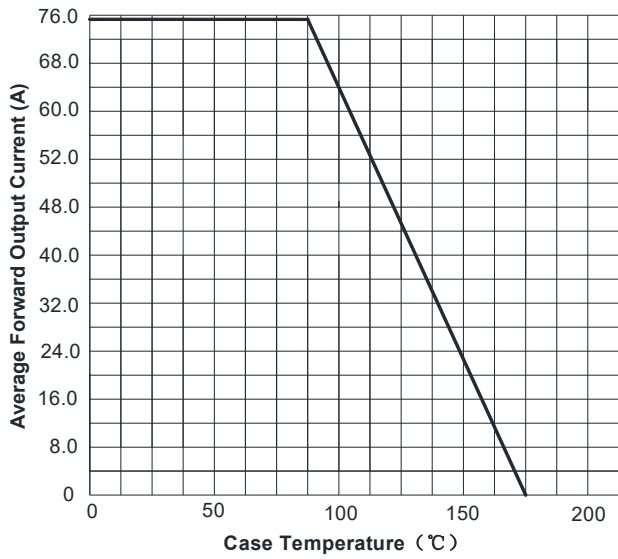


FIG2: Surge Forward Current Capability

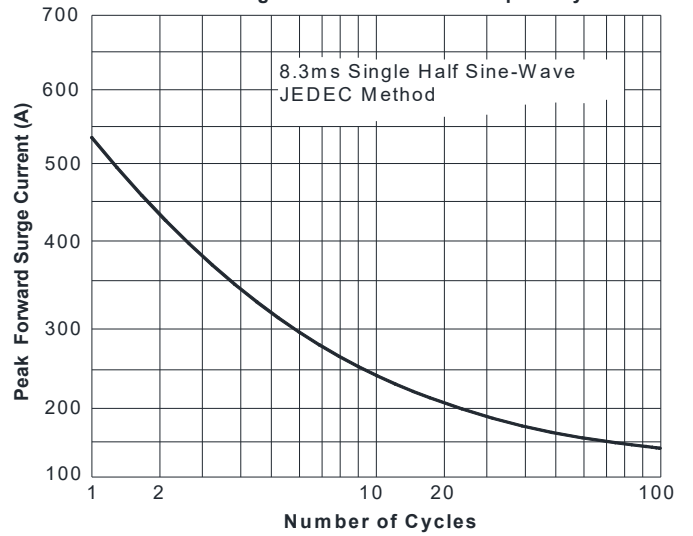


FIG3: Forward Voltage

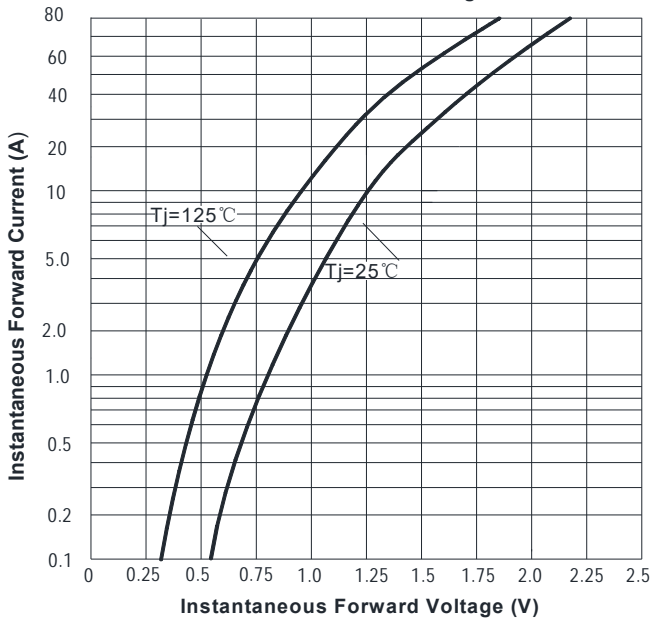


FIG4: Typical Reverse Characteristics

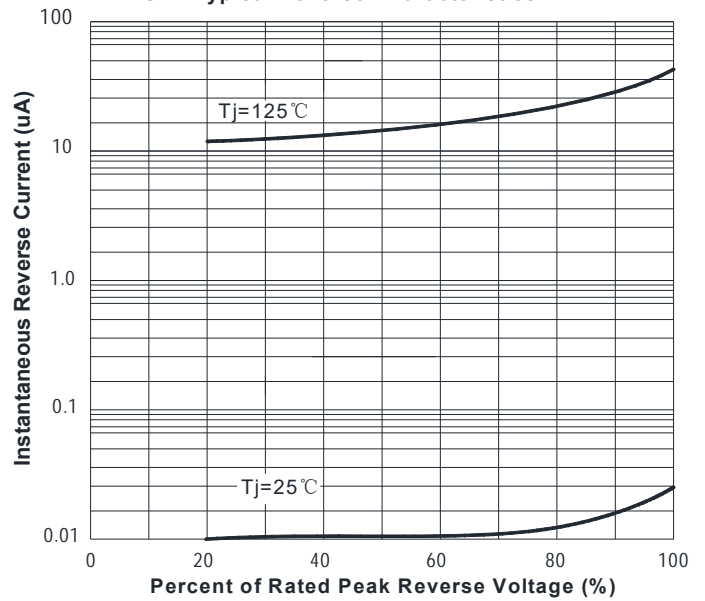
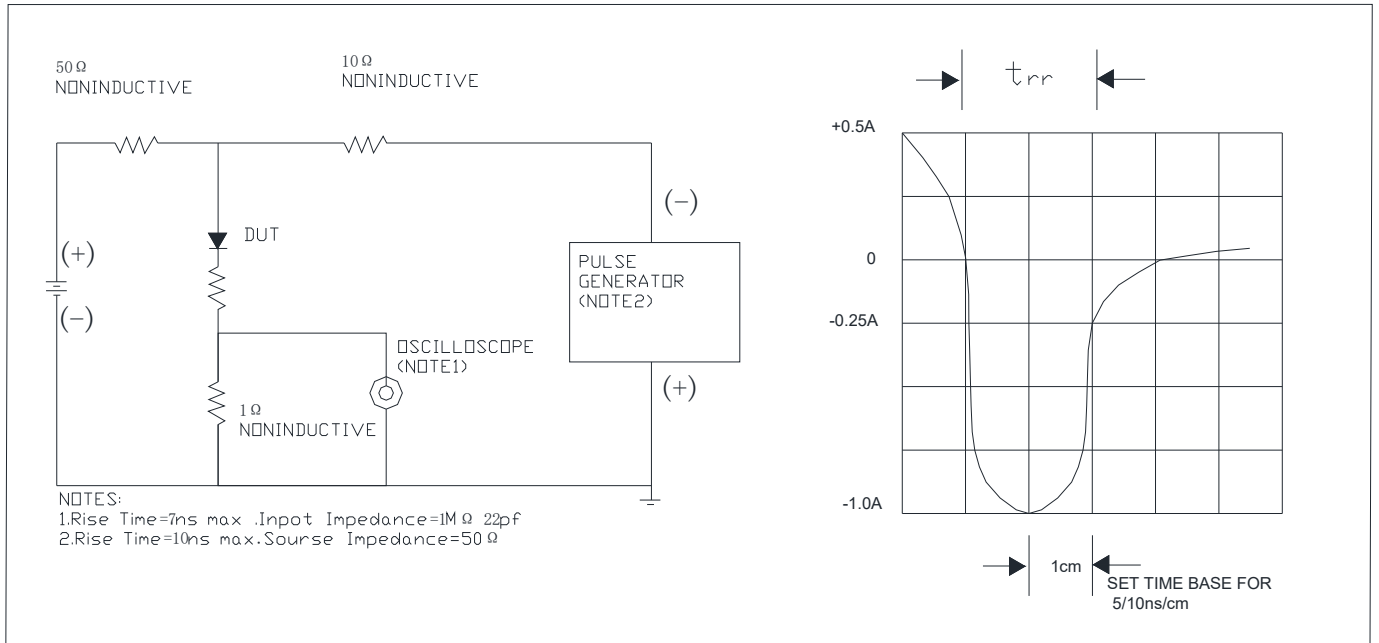
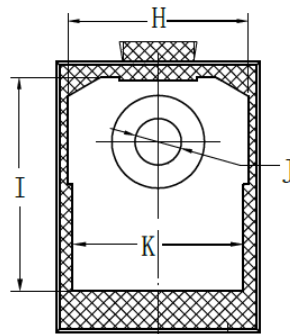
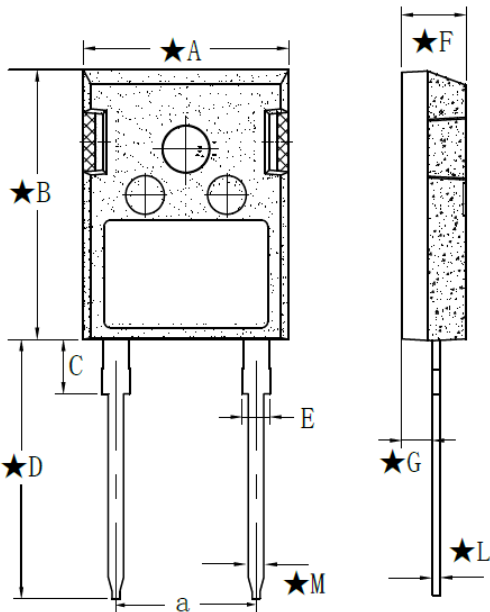


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



Outline Dimensions



SYMBOL	MIN	MAX
★A	15.72	16.12
★B	20.7	21.1
C	4.02	4.42
★D	19.9	20.3
E	2	2.3
★F	4.8	5.2
★G	2.3	2.5
H	TYP14.02	
I	TYP16.55	
J	3.5	3.7
K	TYP13.26	
★L	0.58	0.62
★M	1.15	1.25
★a	TYP10.872	

★为关键尺寸



MURS7560PL-B1-W5094HF

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