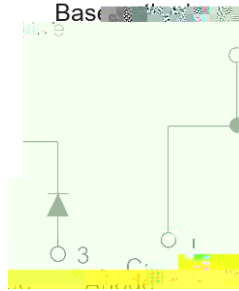


Ultra-Fast Recovery Rectifier Diodes



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 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURL6060P
Device marking code			MURL6060P
Repetitive Peak Reverse Voltage	V _{RRM}	V	600
Average Rectified Output Current @60Hz half sine-wave, R-load, T _c (FIG.1)	I _o	A	60 840

Single Pulse Avalanche Energy @ T _p =40uS, T _j =25 °C, L=15mH	EAS	mJ	550
Storage Temperature	T _{stg}		-55 ~ +175
Junction Temperature	T _j		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	197



MURL6060P

Electrical Characteristics $T_j=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max	
instantaneous forward voltage drop per diode	VFM	V	$I_{FM}=60.0A$ $T_j=25$	-	1.35	1.80	
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	$V_{RM}=V_{RRM}$ $T_j=25$	-	-	5.0	
	I _{RRM2}		$V_{RM}=V_{RRM}$ $T_j=125$	-	-	200	
Reverse Recovery Time	T _{rr}	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25$	-	60	75	
			$T_j=25$	-	99.85	-	
			$T_j=125$	-	166.77	-	
Peak recovery current	I _{RRM}	A	$T_j=25$	- $I_F=30A$ $di/dt=-200A/us$ $V_{RM}=400V$	-	7.55	-
			$T_j=125$		-	16.75	-
Reverse recovery charge	Q _{rr}	nC	$T_j=25$	-	375.85	-	
			$T_j=125$	-	1350	-	

Thermal Characteristics $T_j=25$ Unless otherwise specified

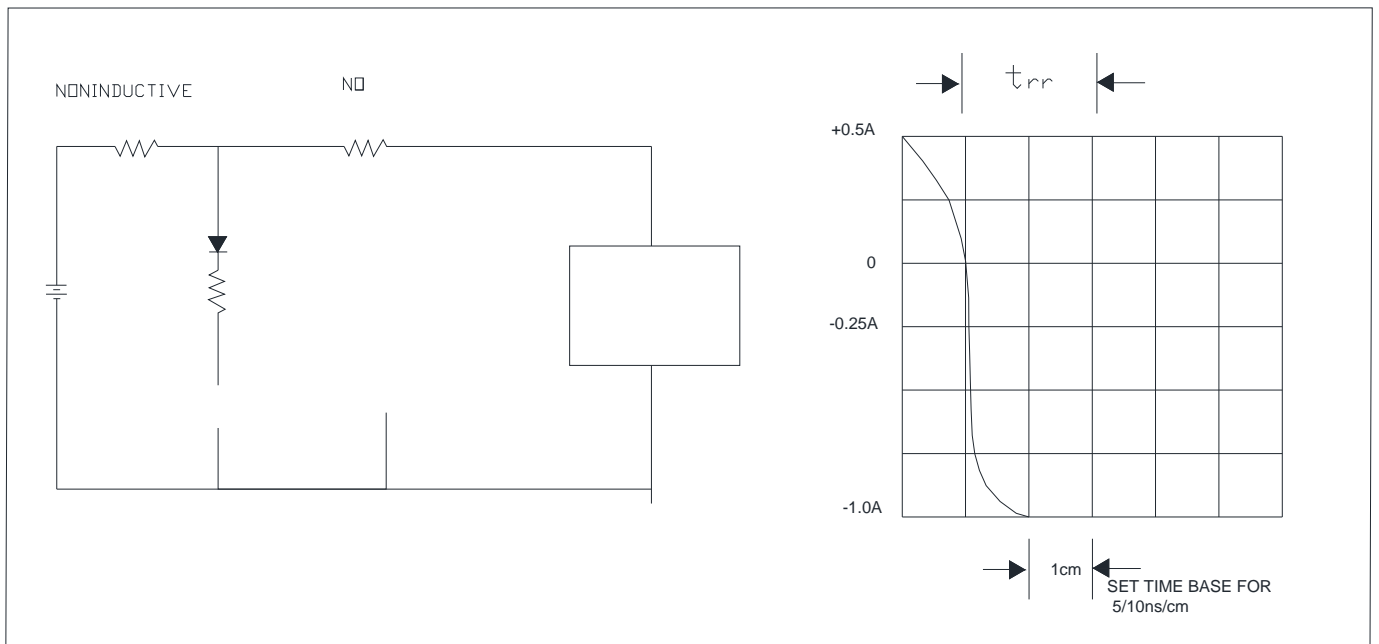
PARAMETER	SYMBOL	UNIT	MURL6060P
Thermal Resistance Between junction and case	R_{j-c}	$^{\circ}W$	1.0

Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURL6060P	Approximate 6.0	30	360	1800	Tube

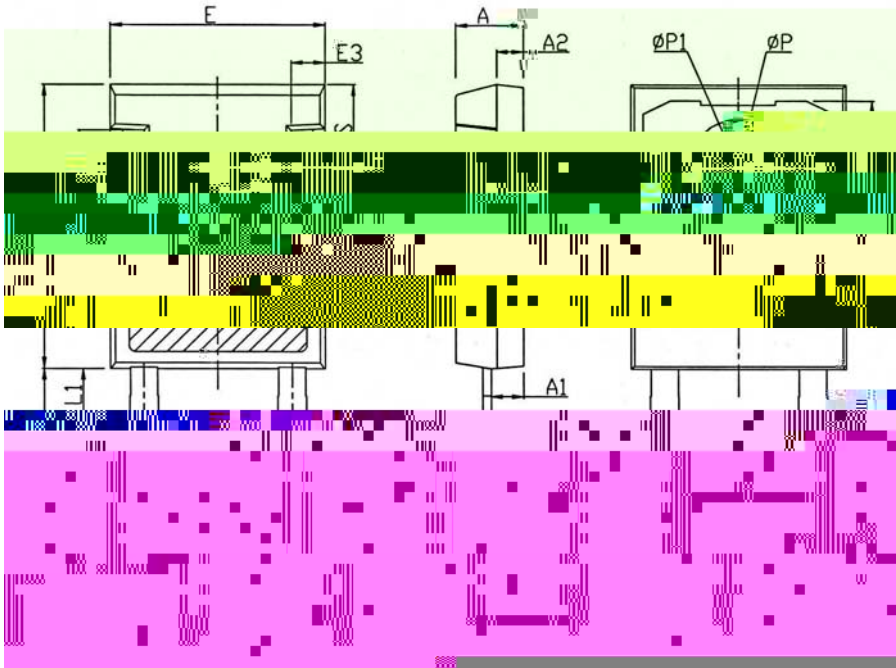
Characteristics (Typical)

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





Outline Dimensions



TO-247AC		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.11	1.36
b2	1.91	2.21



Disclaimer

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