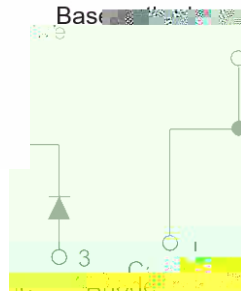


Ultra-Fast Recovery Diodes 60A FRED



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

Repetitive Peak Reverse Voltage	V _{RRM} /V	I _{TS} /A	T _J /°C	A
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Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _J =25 °C, L=15mH	EAS/mJ	—	μs	900	lanche Energy @ T _J
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Storage Temperature	T _{stg}		-55 ~ +175
Junction Temperature	T _j		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	392



MUR6060P

■Electrical Characteristics T_j=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =60.0A T _j =25	-	1.8	2.4
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	-	50	75
			T _j =25	-	69.78	-
			T _j =125	-	101.20	-
Peak recovery current	I _{RRM}	A	T _j =25	-	4.540	-
			T _j =125	-	10.98	-
Reverse recovery charge	Q _{rr}	nC	T _j =25	-	158.44	-
			T _j =125	-	555.70	-

■Thermal Characteristics T_j=25 Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MUR6060P
Thermal Resistance	Between junction and case	R _{θJ-C}	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
MUR6060P	Approximate 6.0	30	360	1800	Tube

■Characteristics (Typical)

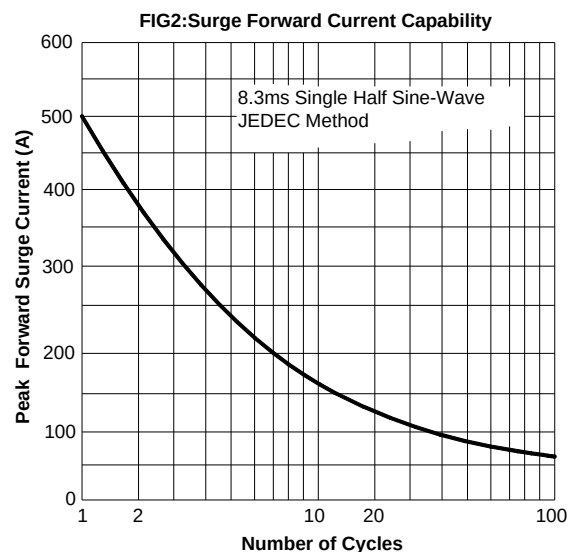
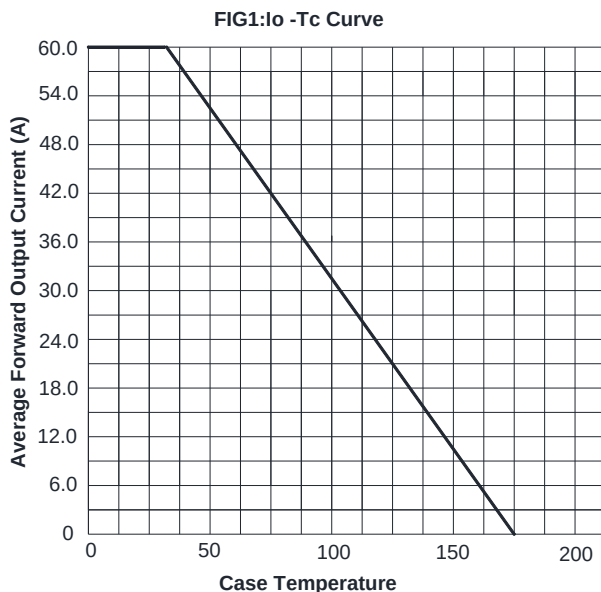
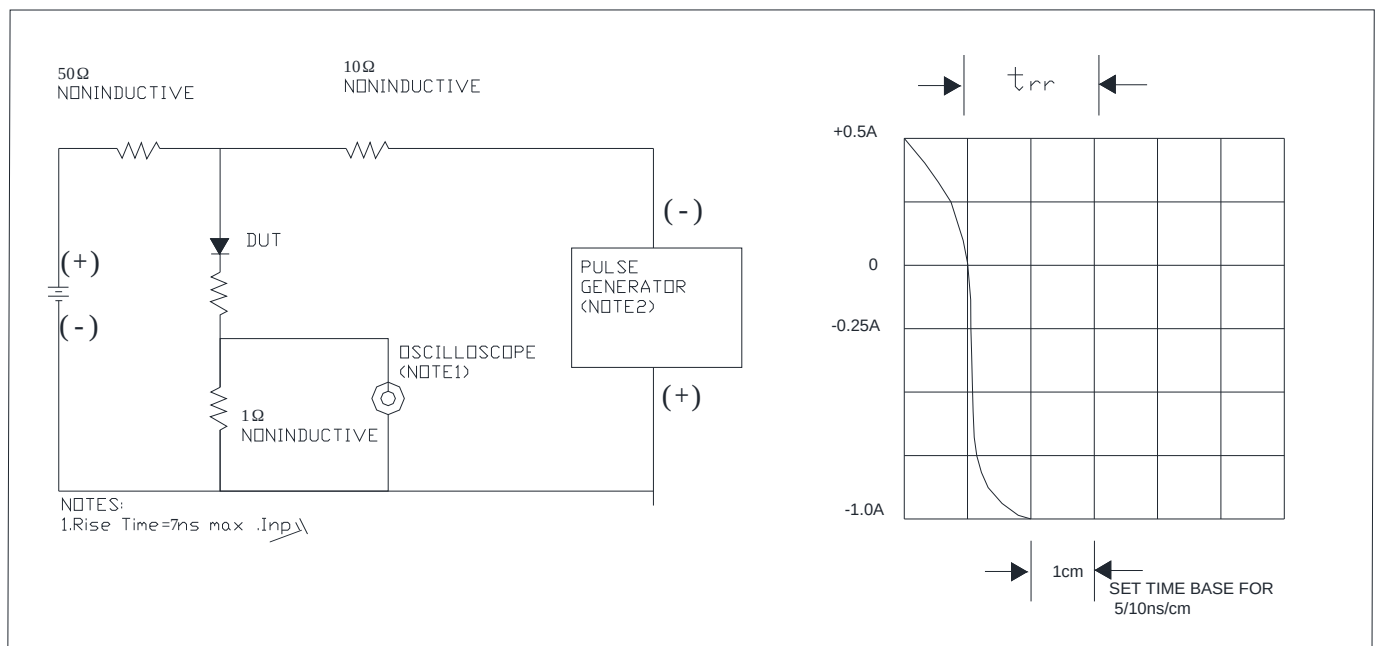


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time







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