

Ultra-Fast Recovery Diodes 15A*2 FRED

MUR3060PT

Product Features

- Glass Passivated Protection Construction
- Ultrafast Recovery Time
- Soft Recovery Characteristics
- Low Forward Voltage and Low Leakage Current
- High Current capability and High reliability

Applications

- Freewheeling, Rectification, Clamp
- Snubber Diode
- Switch Power Supplies
- Motor Control
- Inverters, Frequency Converters
- Power Factor Correction

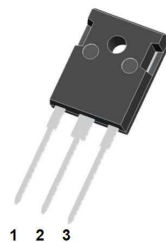
产品特点

- 玻璃钝化保护结构
- 超快恢复时间
- 软恢复特性
- 低正向压降，低漏电流
- 高的电流能力，高的可靠性

应用

- 续流、整流、箝位
- 缓冲二极管
- 开关电源
- 电动机控制
- 逆变器、变频器
- 功率因数校正（PFC）

Part Number 型号	Package 封装
MUR3060PT	TO-247-3L



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

PARAMETER	SYMBOL	UNIT	MUR3060PT
Device marking code			MUR3060PT
Repetitive Peak Reverse Voltage	V _{RRM}	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1)	I _O	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25°C	I _{FSM}	A	150
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	93
Single Pulse Avalanche Energy @ T _p =40uS, T _j =25°C,L=15mH	EAS	mJ	140
Storage Temperature	T _{stg}	°C	-55 ~ +175
Junction Temperature	T _j	°C	-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _j	pF	98

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =15.0A @ T _j =25°C	-	1.45	1.6
			I _{FM} =15.0A @ T _j =150°C	-	1.25	1.4
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _j =25°C	-	-	5.0
	I _{RRM2}		V _{RM} =V _{RRM} T _j =150°C	-	30	200
Reverse Recovery Time	T _{RR}	ns	I _F =0.5A I _{RM} =1A I _{RR} =0.25A T _j =25°C	-	26	35
			T _j =25°C		50	
			T _j =125°C		70	
Peak recovery current	I _{RRM}	A	T _j =25°C	-	5.0	-
			T _j =125°C	-	10.5	-
Reverse recovery charge	Q _{rr}	nC	T _j =25°C	-	285	-
			T _j =125°C	-	1000	-

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

PARAMETER		SYMBOL	UNIT	MUR3060PT
Thermal Resistance	Between junction and case	R _{θJ-C}	°CW	1.0
	Between junction and Air	R _{θJ-A}	°CW	50

■ Characteristics(Typical)

FIG1:Io -Tc Curve

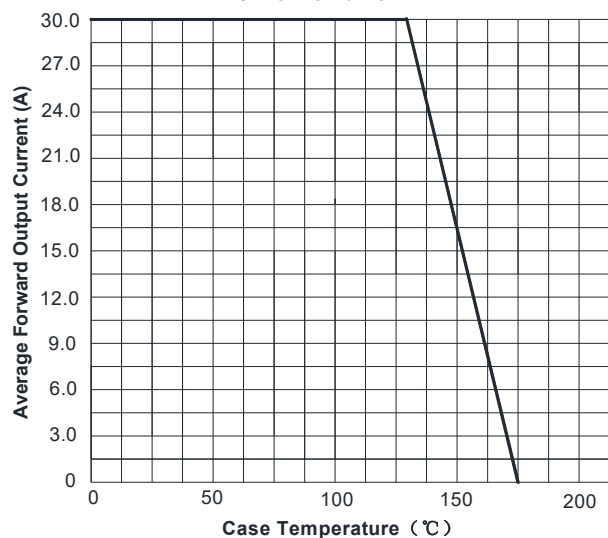


FIG2: Surge Forward Current Capability

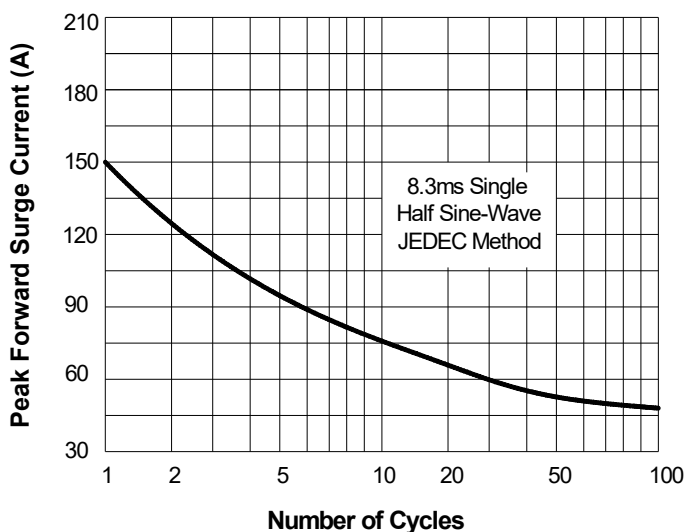


FIG3: Forward Voltage

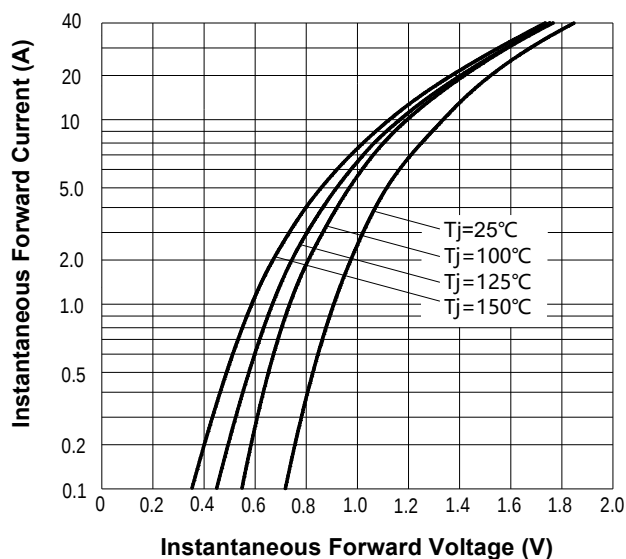


FIG4: Instantaneous Reverse Characteristics

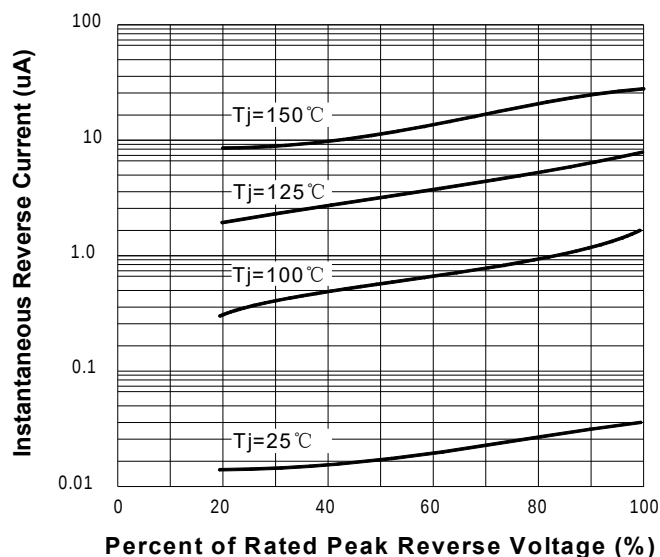
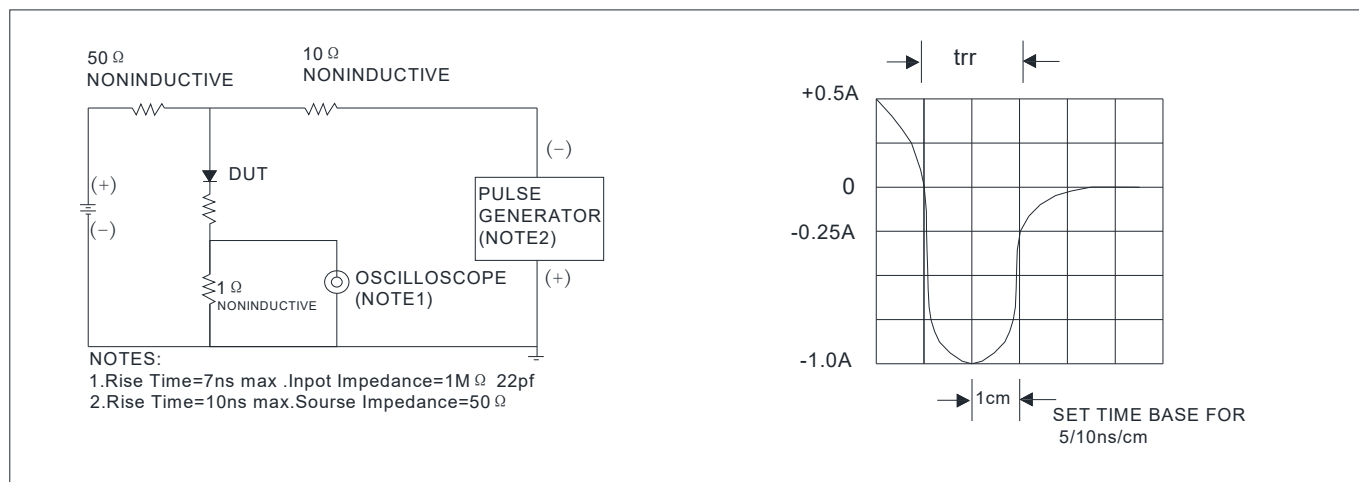
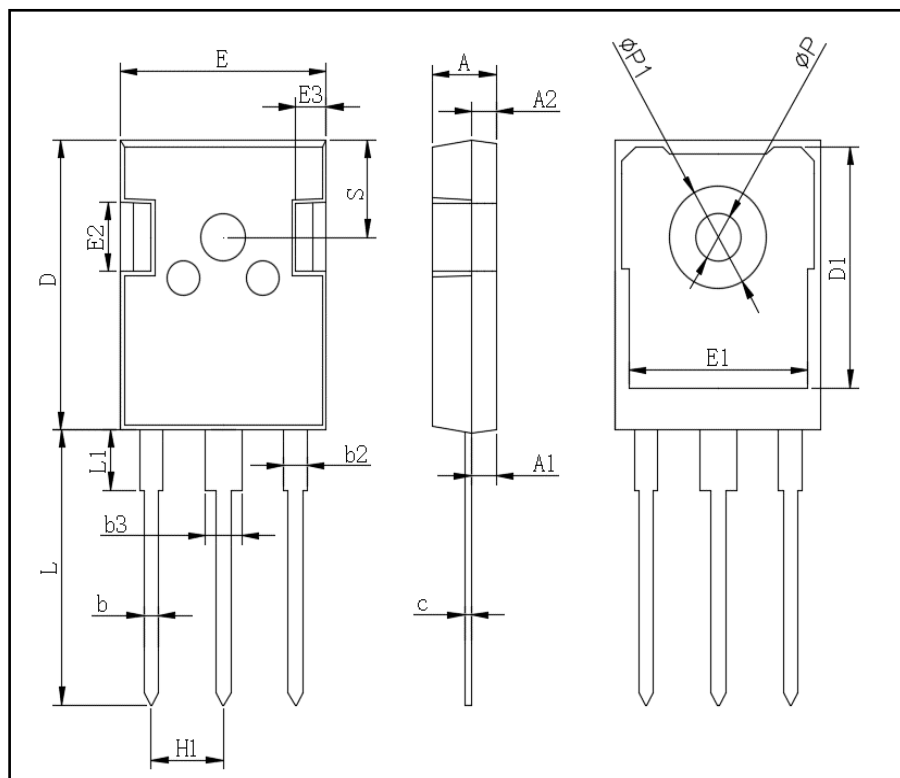


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



TO-247AB		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.0	1.4
b2	1.91	2.21
C	0.5	0.7
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.0	13.6
E2	4.80	5.20
E3	2.30	2.70
L	19.62	20.22
L1	-	4.30
ΦP	3.40	3.80
ΦP1	-	7.30
S	6.15TYP	
H1	5.44TYP	
b3	2.80	3.20