

MUR6020PT THRU MUR6060PT
ULTRA FAST RECOVERY RECTIFIERS



VOLTAGE 200~600 Volts **CURRENT** 60 Amper **Marking**

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Super fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
260 C/10 seconds at terminals

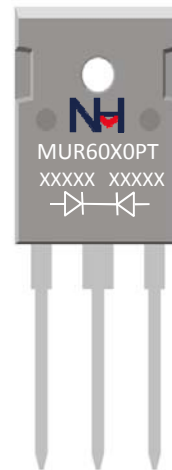
MECHANICAL DATA

- Case: JEDEC TO-247
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

TO-247
MUR60X0PT



Maximum Ratings and Electrical Characteristics(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	MUR6020PT	MUR6040PT	MUR6060PT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	Per leg	30		A
		Total device	60		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode(JEDEC method at rated TL)	I_{FSM}	420			A
Maximum instantaneous forward voltage per diode at 30.0A (Note 1)	V_F	1.00	1.40	1.60	V
Maximum instantaneous reversecurrent at rated DC blocking voltage(Note 2)	I_{RRM}	5			uA
		500			
Maximum Reverse Recovery Time (Note 3)	T_{RR}	50			nS
Junction Capacitance (Note 4)	C_J	550			pF
Operating junction and Storage temperature range	T_J	150			°C
Storage temperature range	T_{STG}	-65 to +150			

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	TO-247	Unit
Maximum junction-to-ambient	$R_{\theta JA}$	62	°C/W
Maximum junction-to-case	$R_{\theta JC}$	0.55	

- Note 1.Pulse test: 300 μs pulse width,1% duty cycle
 2.Pulse test: pulse width≤40ms
 3. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
 4.Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc.

MUR6020PT THRU MUR6060PT
ULTRA FAST RECOVERY RECTIFIERS



RATING AND CHARACTERISTIC CURVES

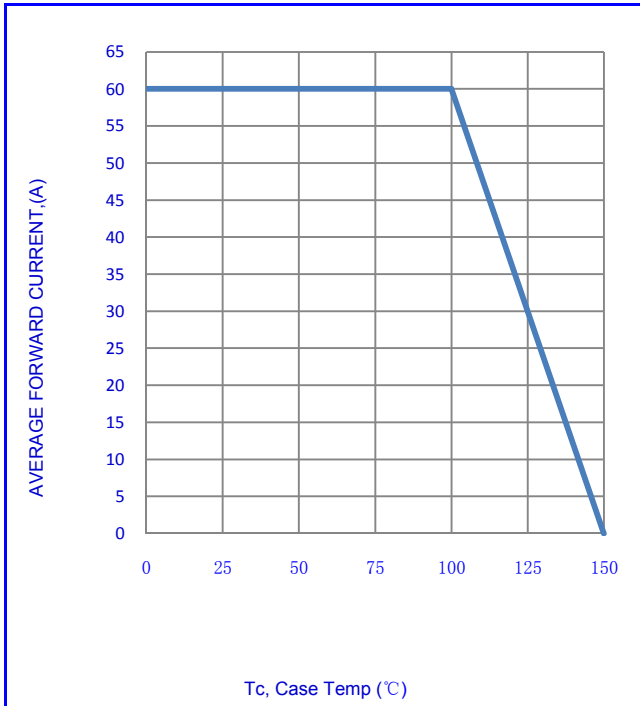


Fig. 1- FORWARD CURRENT DERATING CURVE

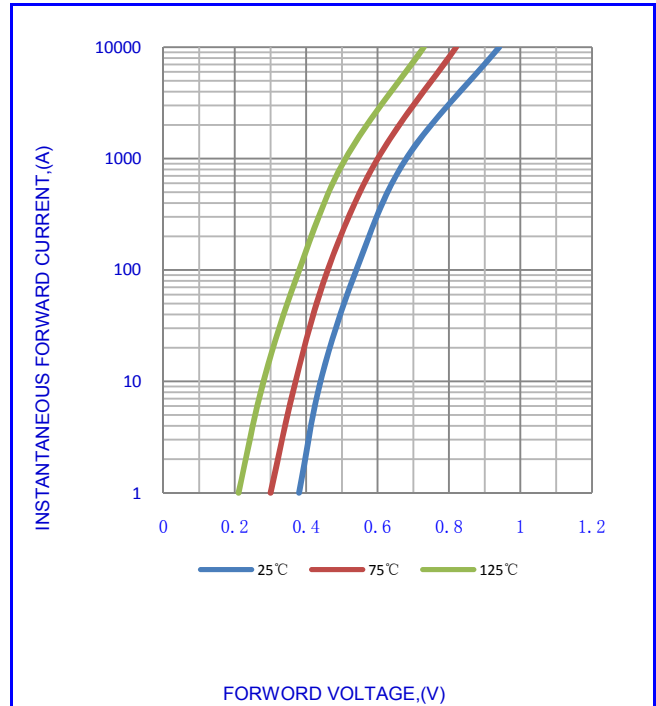


Fig. 2- TYPICAL INSTANTANEOUS FORWARD

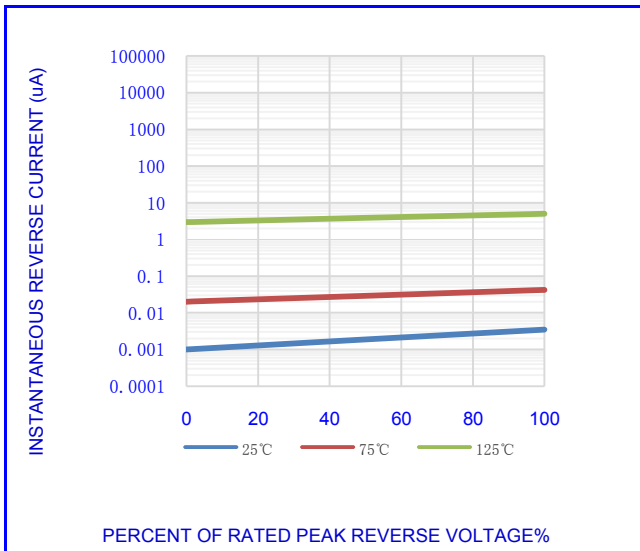


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

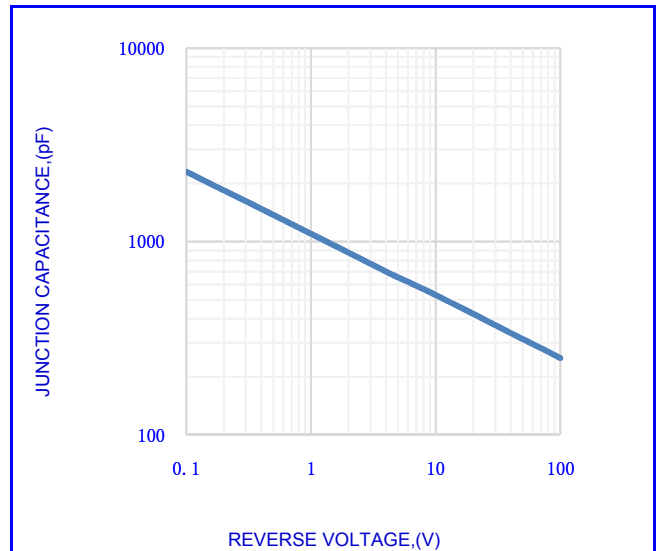


Fig. 4- TYPICAL JUNCTION CAPACITANCE

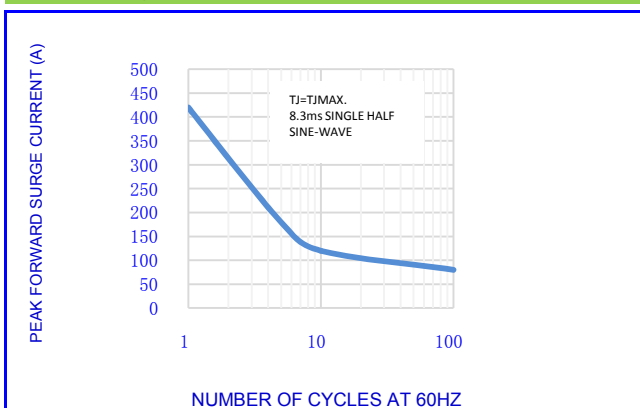


Fig. 5- MAX. NON-REPETITIVE SURGE CURRENT

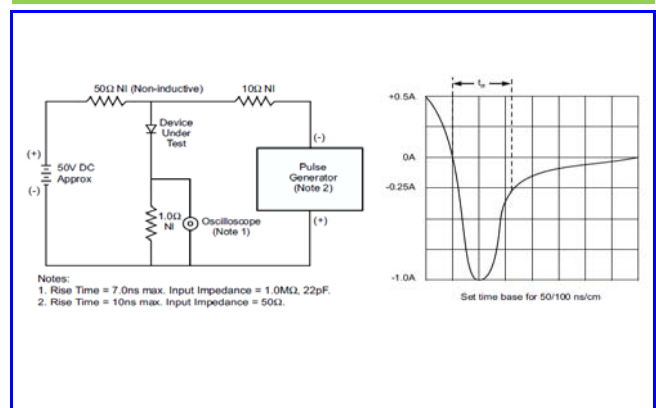
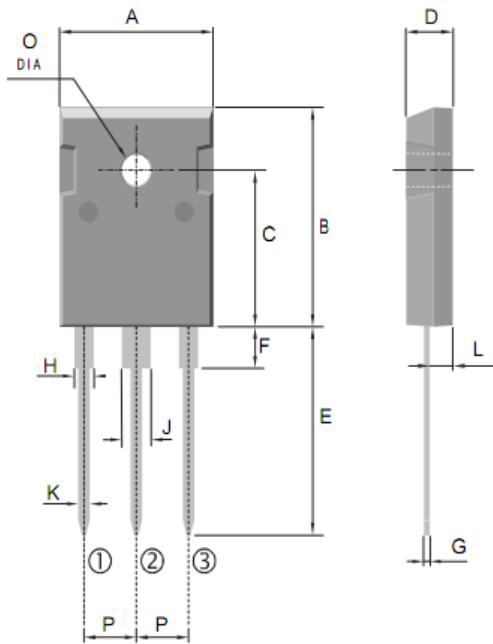


Fig. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT

MUR6020PT THRU MUR6060PT
ULTRA FAST RECOVERY RECTIFIERS



OUTLINE DRAWINGS



OUTLINE DIMENSIONS						
DIM	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	15.75	-	16.25	0.620	-	0.640
B	20.80	-	21.30	0.819	-	0.839
C	14.75	-	15.25	0.581	-	0.600
D	4.45	-	5.05	0.175	-	0.199
E	19.75	-	20.25	0.778	-	0.797
F	3.70	-	4.30	0.146	-	0.169
G	0.45	-	0.75	0.018	-	0.030
H	1.80	-	2.20	0.071	-	0.087
J	2.80	-	3.20	0.110	-	0.126
L	-	2.40	-	-	0.094	-
O	3.20	-	3.60	0.126	-	0.142
P	5.20	-	5.70	0.205	-	0.224

TO-247

Packing Information

Product code	Pack	Box Size L×W×H(mm)	Quantity (pcs/box)	Carton Size L×W×H(mm)	Quantity (box/carton)
TO-247	P/T	550*150*40	600	580*230*175	4