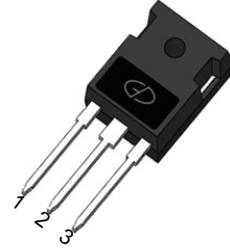


60A,600V Ultrafast Recovery Rectifier

Features

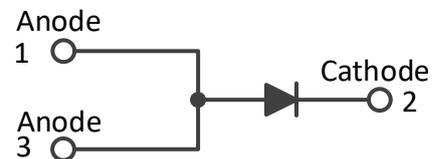
- FRED Wafer Construction
- Low forward drop voltage, low power loss
- High Surge Current Capability
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21



TO-247AD

Applications

- SMPS
- Inverter
- UPS



Mechanical Data

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 30 units per plastic tube

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	MUR6060SPT	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	600	V
Working peak reverse voltage	V _{RWM}	600	V
Maximum DC blocking voltage	V _{DC}	600	V
Maximum average forward rectified current	I _{F(AV)}	60	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	600	A
Voltage rate of change (rated V _R)	dv/dt	10000	V/us
Operating junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Thermal-Mechanical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Case	R_{thJC}	1.0	$^{\circ}\text{C}/\text{W}$
Thermal Resistance, Junction to Ambient	R_{thJA}	62.5	$^{\circ}\text{C}/\text{W}$

Electrical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)					
Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward drop voltage (Note 1)	V_F	$I_F=60\text{A}, T_J=25^{\circ}\text{C}$	1.35	1.85	V
		$I_F=60\text{A}, T_J=125^{\circ}\text{C}$	-	1.70	
Reverse leakage current @VR (Note 2)	I_R	$T_J=25^{\circ}\text{C}$	-	10	μA
		$T_J=125^{\circ}\text{C}$	-	500	
Reverse recovery time	t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	-	80	ns

Note 1: Pulse test with $PW=0.3\text{ms}$, duty cycle=2%

Note 2: Pulse test with $PW=30\text{ms}$

Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

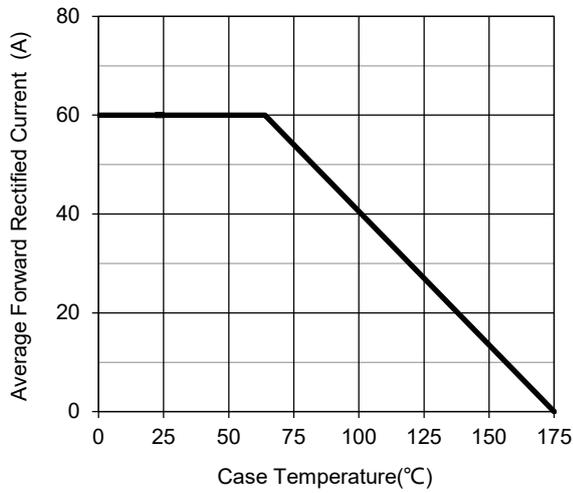


Fig.1 – Forward Current Derating Curve

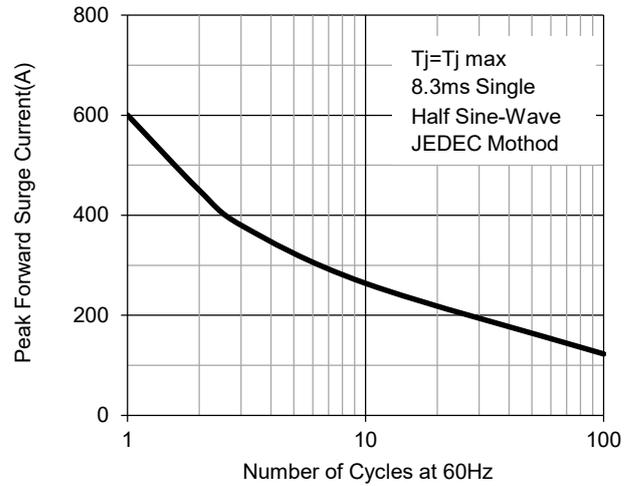


Fig.2 – Maximum Non-Repetitive Surge Current

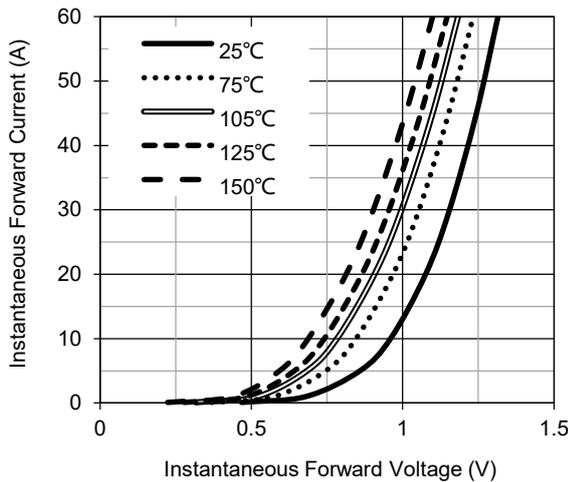


Fig.3 – Typical Forward Voltage Characteristics

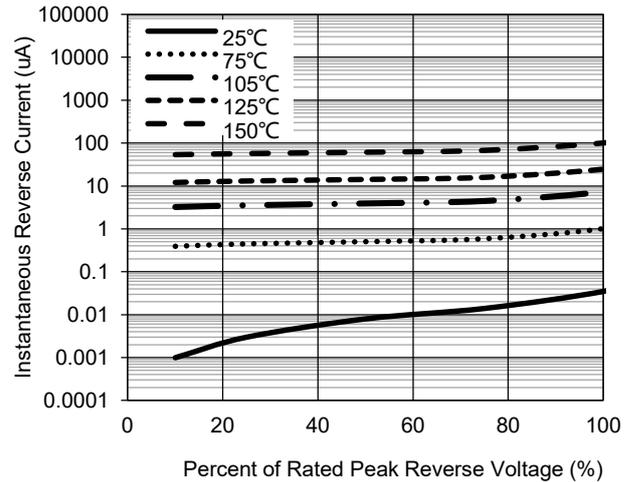


Fig.4 – Typical Reverse Current Characteristics

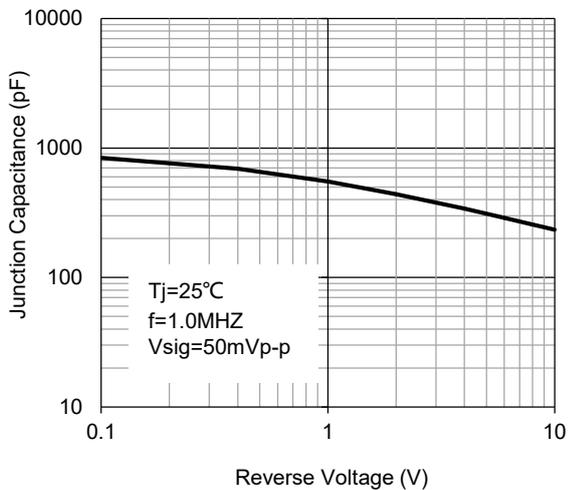
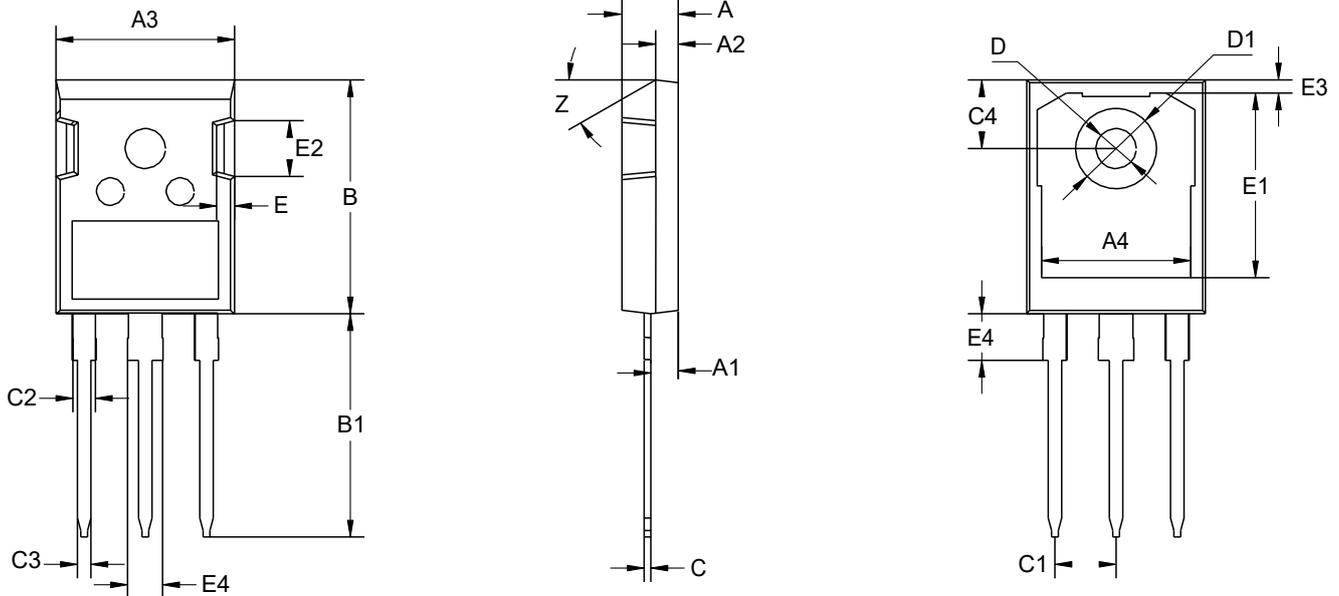


Fig.5 – Typical Junction Capacitance

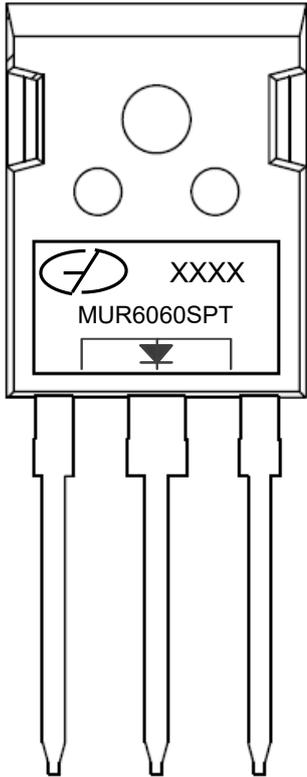
Package Outline Dimensions (Unit: millimeters)

TO-247AD



TO-247AD							
	Min.	Nom.	Max.		Min.	Nom.	Max.
A	4.7	5	5.2	C3	1.1	1.2	1.3
A1	2.3	-	2.5	C4	6.04	6.15	6.30
A2	1.9	2	2.1	D	3.5	3.6	3.7
A3	15.48	15.88	16.28	D1	7	7.19	7.4
A4	13.06	13.26	13.56	E	1.5	1.6	1.7
B	20.8	20.95	21.1	E1	-	16.55	-
B1	19.8	20	20.32	E2	4.9	5.0	5.1
C	0.5	0.6	0.7	E3	0.95	1.17	1.35
C1	5.34	5.44	5.54	E4	-	4.17	4.5
C2	-	2	-	Z	-	30°	-

Marking Outline



1. Logo Mark: 
2. Part Name: MUR6060SPT
3. Date Code: XXXX
4. Polarity : 

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