

### Features

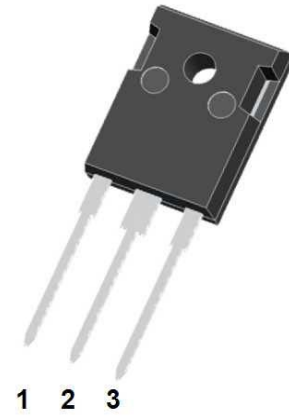
- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

### Typical Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

### Mechanical Data

- **Package:** TO-247AB  
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



TYPE	V <sub>RSM</sub> V	V <sub>RRM</sub> V
MUR6020PT	200	200

### ■ Maximum Ratings (T<sub>j</sub>=25°C Unless otherwise specified)

Absolute Maximum Ratings				
Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	V <sub>RRM</sub>		200	V
Continuous forward current	I <sub>F(AV)</sub>	T <sub>c</sub> =110°C	60	A
Single pulse forward current	I <sub>FSM</sub>	T <sub>c</sub> =25°C	360	
Maximum repetitive forward current	I <sub>FRM</sub>	Square wave, 20kHz	240	
Operating junction	T <sub>j</sub>		175	°C
Storage temperatures	T <sub>stg</sub>		-55 to +175	°C

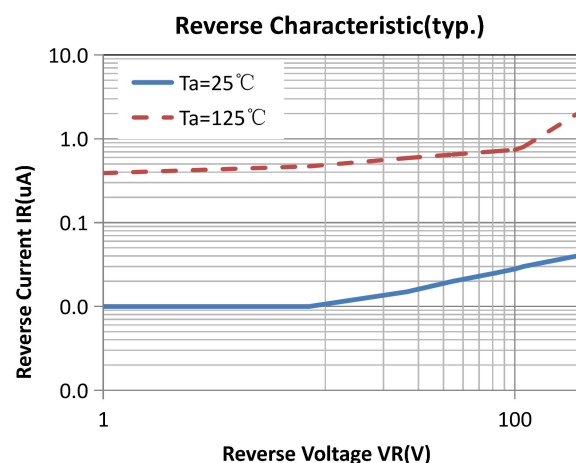
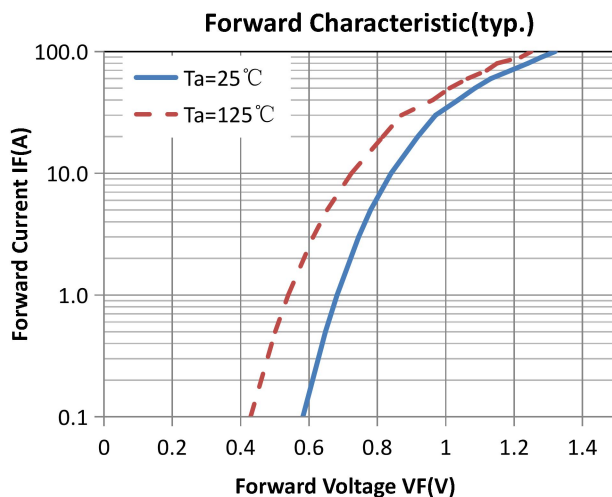
### Electrical Characteristics

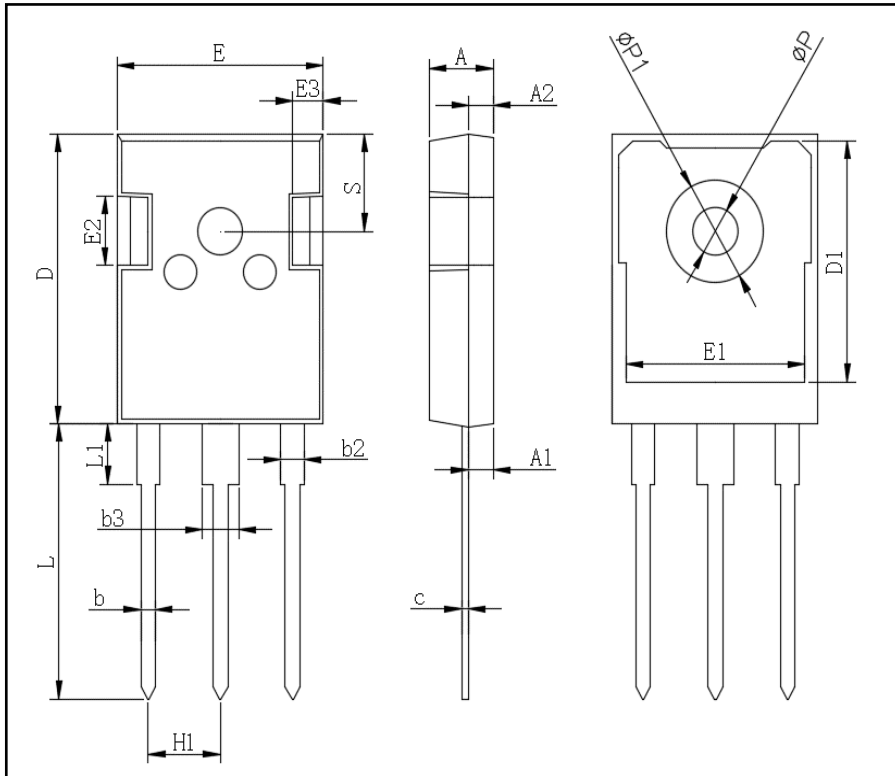
Electrical characteristics (Ta=25°C unless otherwise specified)						
Parameter	Symbol	Test Conditions	Min	Typ.	Max.	Units
Breakdown voltage Blocking voltage	$V_{BR}$ , $V_R$	$I_R=100\mu A$	200			V
Forward voltage (Per Diode)	$V_F$	$I_F=30 A$		0.98	1.05	
		$I_F=30 A, T_j=125^\circ C$		0.85	0.95	
Reverse leakage current(Per Diode)	$I_R$	$V_R=V_{RRM}$			10	$\mu A$
		$T_j=150^\circ C, V_R=200V$			100	
Reverse recovery time(Per Diode)	$t_{rr}$	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		30	35	ns
		$I_F=1A, V_R=30V, di/dt=200A/\mu s$		21	35	

### Thermal characteristics

Paramter	Symbol	Typ	Units
Junction-to-Case	$R_{\theta JC}$	0.75	$^\circ C/W$

### Electrical performance (typic)





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

Device	Package	Shipping
MUR6020PT	TO-247AB	30 pieces / tube