



DESCRIPTION

The MUR3060 and MUR3060S are available in TO-247 and TO-247S Packages.

MECHANICAL DATA

- Case: TO-247, TO-247S
- Solder Bath Temperature 275°C Maximum, 10s per JESD22-106

ORDERING INFORMATION

Package Type	Part Number
TO-247	MUR3060
TO-247S	MUR3060S
Note	SPQ: 30pcs/Tube

AiT provides all RoHS Compliant Products

FEATURE

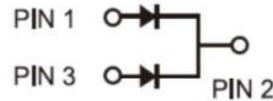
- High Speed Switching Capability
- High Current Capability
- High Forward Surge Capability
- Low Power Losses , High Efficiency
- For Use in Low Voltage, High Frequency Inverters

PIN DESCRIPTION



TO-247

TO-247S



Pin #	1	2	3
Symbol	CATHODE		ANODE

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified

V_{RRM} , Maximum Repetitive Peak Reverse Voltage	600V
V_{RMS} , Maximum RMS Voltage	420V
V_{DC} , Maximum DC Blocking Voltage	600V
I_O , Maximum Average Forward Rectified Current at $T_C=120^\circ\text{C}$	15A Per Leg Total 30A
I_{FSM} , Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	250A
T_J , Operating Junction Temperature Range	150°C
T_{STG} , Storage Temperature Range	-40°C ~ + 150°C
$R_{\theta JC}$, Typical Thermal Resistance	2°C/W
$R_{\theta JA}$, Typical Thermal Resistance	2°C/W

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Typ.	Max.	Unit
Forward Voltage Drop	V_F	IF=3A	$T_A=25^\circ\text{C}$	0.92	-
			$T_A=125^\circ\text{C}$	0.73	-
		IF=5A	$T_A=25^\circ\text{C}$	0.99	-
			$T_A=125^\circ\text{C}$	0.80	-
		IF=15A	$T_A=25^\circ\text{C}$	1.20	1.59
			$T_A=125^\circ\text{C}$	1	-
Maximum Reverse Current	I_R	$V_R=600$	$T_A=25^\circ\text{C}$	0.03	1
			$T_A=125^\circ\text{C}$	11	-
Maximum Reverse Recovery Time at	T_{RR}	IF=0.5A, IR=1A, IRR=0.25A	-	50-	nS

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Maximum Forward Current Derating Curve

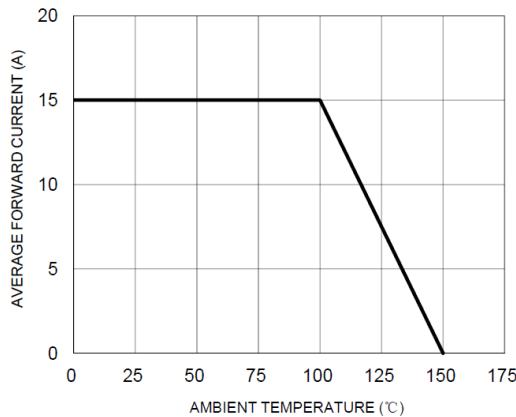


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current Per leg

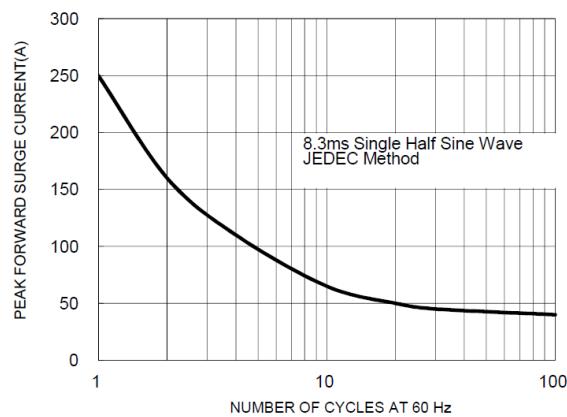


Fig 3. Typical Forward Characteristics Per Leg

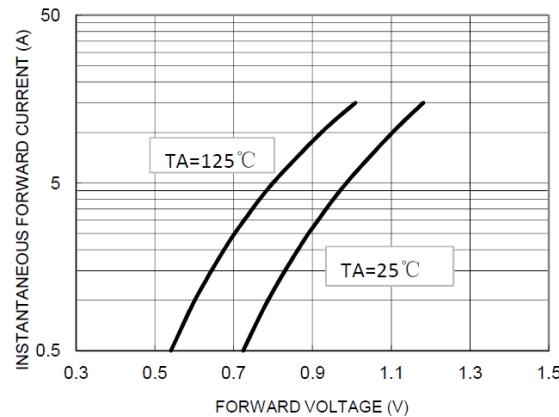
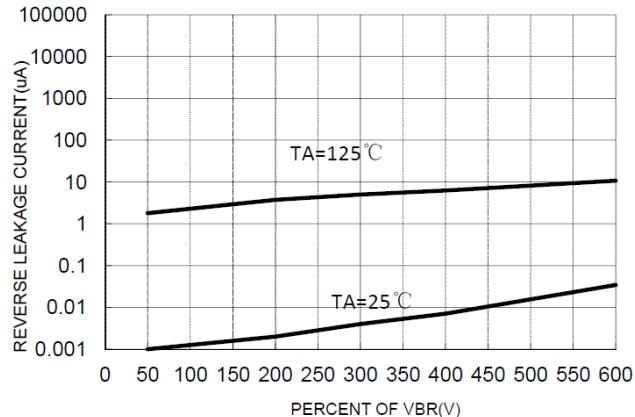


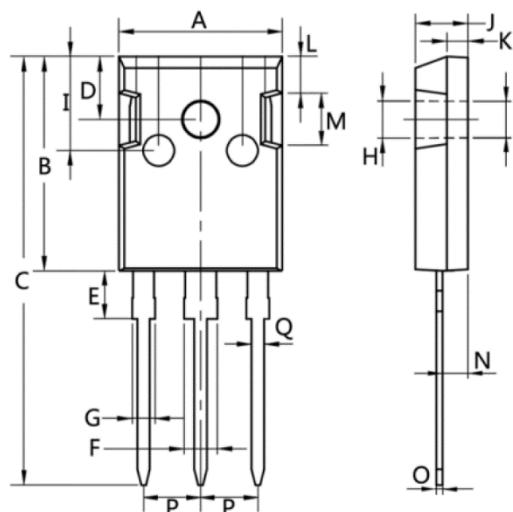
Fig 4. Typical Reverse Characteristics Per Leg





PACKAGE INFORMATION

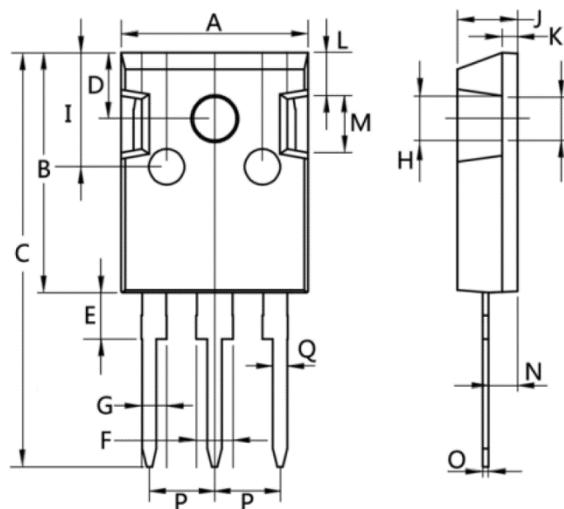
Dimension in TO-247 Package



Symbol	Millimeters (mm)	
	Min.	Max.
A	15.000	16.000
B	20.000	21.000
C	41.000	42.000
D	5.000	6.000
E	4.000	5.000
F	2.500	3.500
G	1.750	2.500
H	3.000	3.500
I	8.000	10.000
J	4.900	5.100
K	1.900	2.100
L	3.500	4.000
M	4.750	5.250
N	2.000	3.000
O	0.550	0.750
P	5.080 TYP.	
Q	1.200	1.300



Dimension in TO-247S-3 Package



Symbol	Millimeters (mm)	
	Min.	Max.
A	15.000	16.000
B	20.000	21.000
C	41.000	42.000
D	5.000	6.000
E	4.000	5.000
F	2.500	3.500
G	1.750	2.500
H	3.000	3.500
I	8.000	10.000
J	4.900	5.100
K	1.900	2.100
L	3.500	4.000
M	4.750	5.250
N	2.000	3.000
O	0.550	0.750
P	5.080 TYP.	
Q	1.200	1.300



AiT Semiconductor Inc.

www.ait-ic.com

MUR3060_MUR3060S

RECTIFIER DIODES

30A 600V ULTRAFST RECOVERY RECTIFIER

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