



MUR3060PT

ULTRAFST RECOVERY RECTIFIERS

Reverse Voltage - 600 V

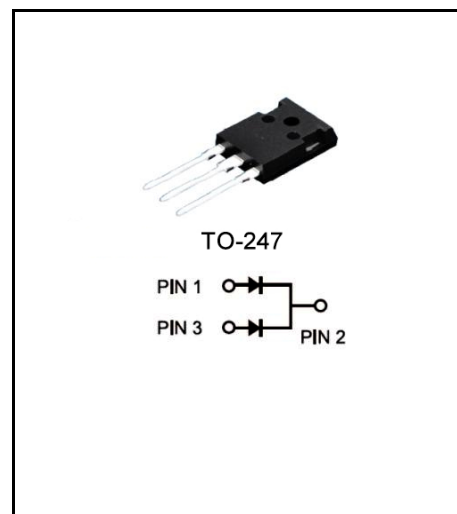
Forward Current - 30 A

FEATURES

- ◆High speed switching capability
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆For use in low voltage, high frequency inverters
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: TO-247
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106



Primary Characteristic

I_o	2*15A
V_{RRM}	600V
I_{FSM}	250A
V_F	1.0V
T_J Max	150°C

Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Maximum RMS voltage		V_{RMS}	600	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Maximum Average Forward Rectified Current	Per Leg	I_o	15	A
	Total		30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave		I_{FSM}	250	A
Operating Temperature Range		T_J	150	°C
Storage Temperature Range		T_{STG}	-40 ~ +150	°C
Typical Thermal Resistance (Note1) TO-247/PT TO-247/PTS		$R_{\theta JA}$ $R_{\theta JC}$	2	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at $I_F=3A$	$T_A=25^\circ\text{C}$		0.92	-	
	$T_A=125^\circ\text{C}$		0.73	-	
at $I_F=5A$	$T_A=25^\circ\text{C}$		0.99	-	
	$T_A=125^\circ\text{C}$		0.80	-	
at $I_F=15A$	$T_A=25^\circ\text{C}$		1.20	1.59	
	$T_A=125^\circ\text{C}$		1.00	-	
Maximum Reverse Current at $V_R=600V$	$T_A=25^\circ\text{C}$	I_R	0.03	1	uA
	$T_A=125^\circ\text{C}$		11	-	uA
Maximum Reverse Recovery Time at $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$		T_{RR}	-	50	nS

Note2: Pulse test: 300 μs pulse width, 1 % duty cycle



RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

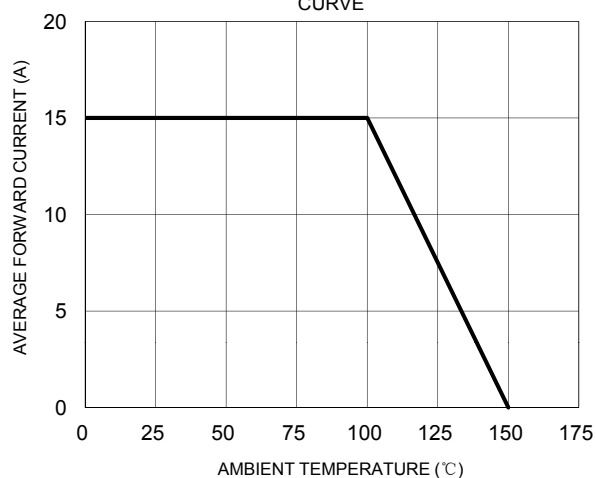


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

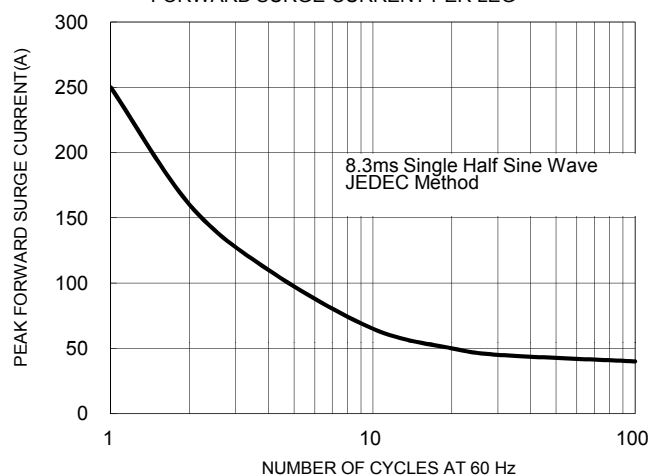


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

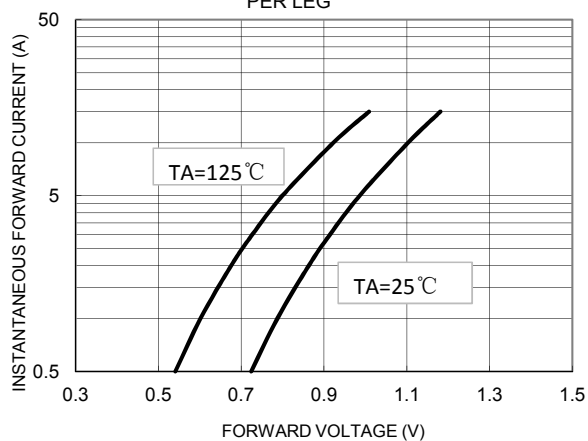
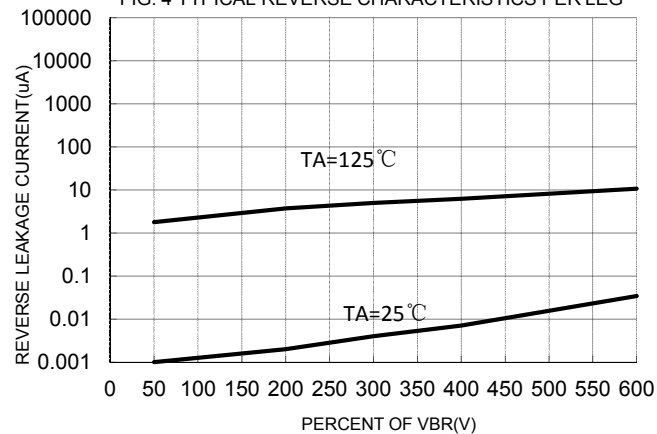


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

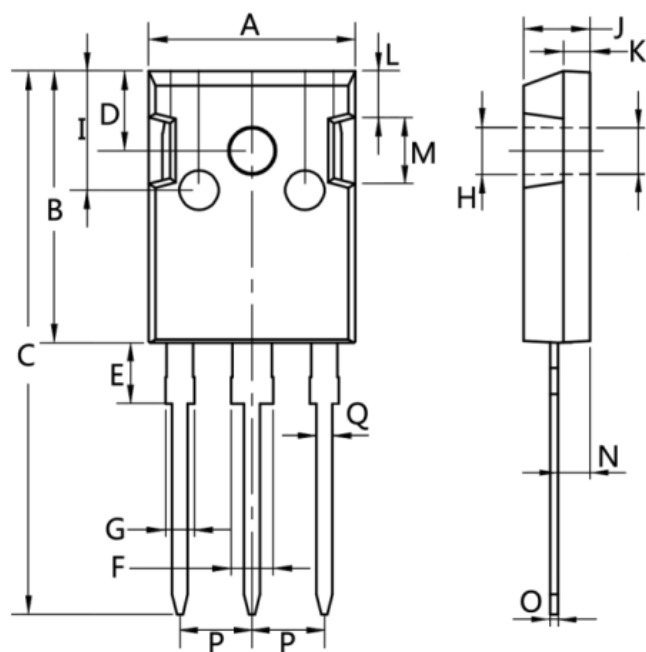




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Package Outline Dimensions millimeters

TO-247



Dim.	Min.	Max.
A	15.0	16.0
B	20.0	21.0
C	41.0	42.0
D	5.0	6.0
E	4.0	5.0
F	2.5	3.5
G	1.75	2.5
H	3.0	3.5
I	8.0	10.0
J	4.9	5.1
K	1.9	2.1
L	3.5	4.0
M	4.75	5.25
N	2.0	3.0
O	0.55	0.75
P	Typ 5.08	
Q	1.2	1.3
All Dimensions in millimeter		