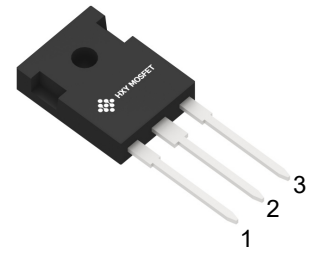


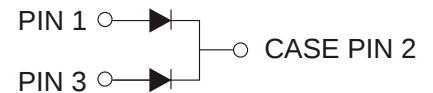


Features

- High speed switching capability
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- For use in low voltage, high frequency inverters



TO-247



Maximum Ratings (Ta=25°C unless otherwise noted)

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	30	A
	Total		60	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave		I_{FSM}	420	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.

Electrcal Charcteristics (Ta=25°C unless otherwise specified)

Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at IF=5A	TA=25°C		0.91	-	
	TA=125°C		0.71	-	
at IF=10A	TA=25°C		1.02	-	
	TA=125°C		0.82	-	
at IF=30A	TA=25°C		1.24	1.59	
	TA=125°C		1.05	-	
Maximum Reverse Current at VR=600V	TA=25°C	I_R	0.1	1	uA
	TA=25°C		15	-	uA
Maximum Reverse Recovery Time at IF=0.5A, IR=1A, IRR=0.25A		T_{RR}	-	50	nS

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



Typical Characteristics

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

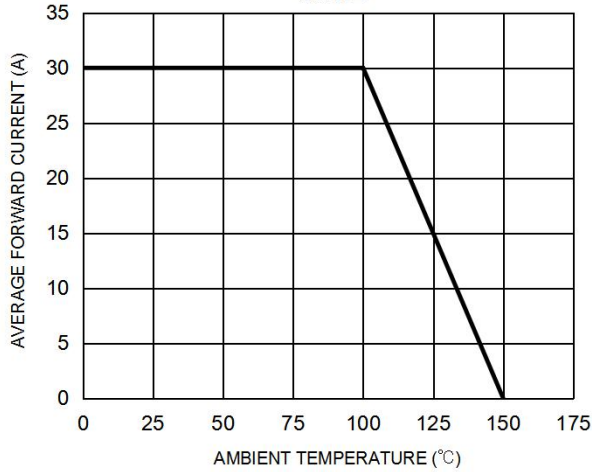


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

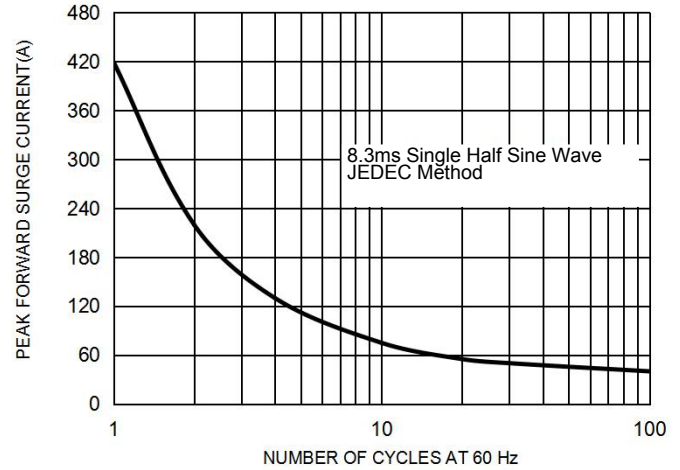


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

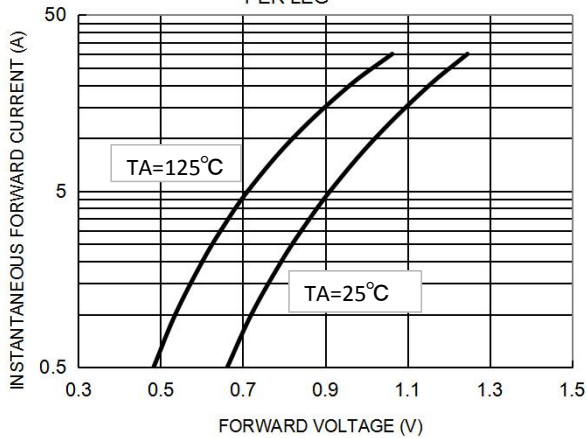
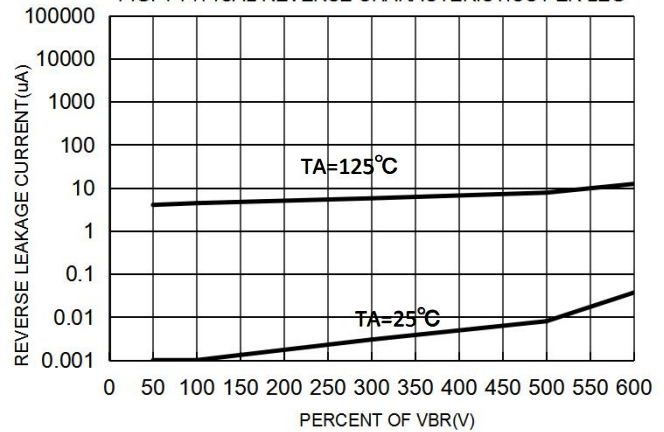


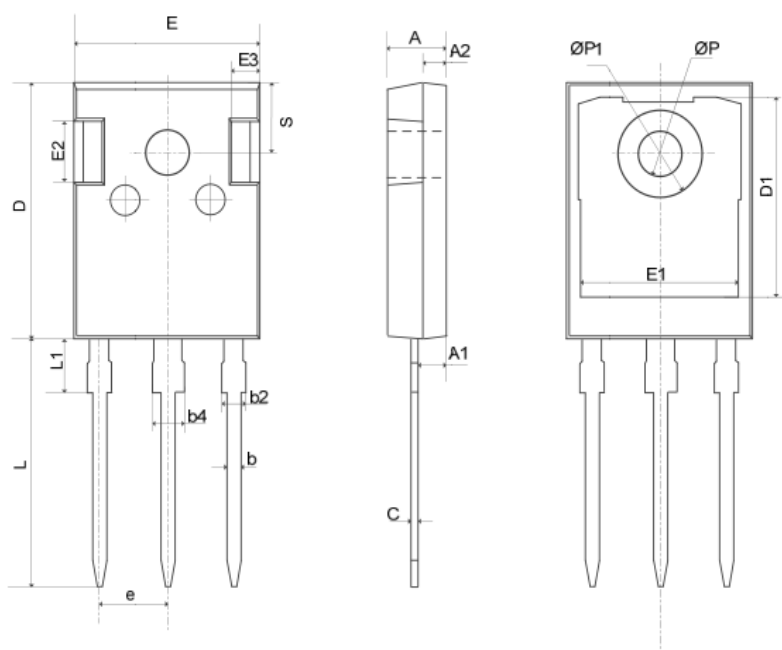
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG





TO-247 Package Information

COMMON DIMENSIONS



SYMBOL	MM	
	MIN	MAX
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.11	1.36
b2	1.91	2.21
b4	2.91	3.21
c	0.51	0.75
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.00	13.60
E2	4.80	5.20
E3	2.30	2.70
e	5.44BSC	
L	19.62	20.22
L1	—	4.30
ØP	3.40	3.80
ØP1	—	7.30
S	6.15BSC	



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