

Ultrafast Rectifier

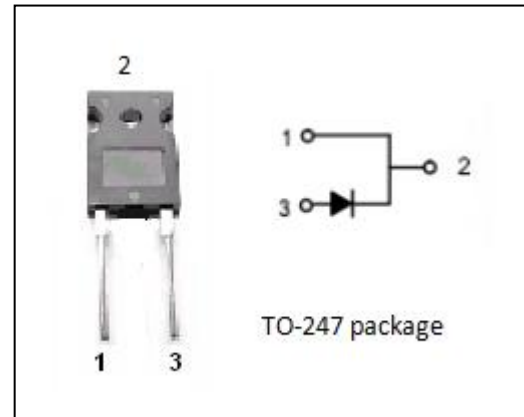
DPG60I300HA

FEATURES

- Guarding for over voltage protection
- Low Loss and Soft Recovery
- High Performance Fast Recovery Diode
- Single Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- These devices are ideally suited for HF welding, power converters and other applications where switching losses are not significant portion of the total losses.



ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	300	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_c=130^{\circ}\text{C}$	60	A
I_{FSM}	Non-repetitive Peak Surge Current $t=10\text{ms}; (50\text{Hz}); \text{sine}; T_c=45^{\circ}\text{C};$	550	A
T_J	Max.Junction Temperature	175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=60\text{A}; T_j=25^{\circ}\text{C}$ $I_F=120\text{A}; T_j=25^{\circ}\text{C}$ $I_F=60\text{A}; T_j=175^{\circ}\text{C}$ $I_F=120\text{A}; T_j=175^{\circ}\text{C}$	1.40 1.72 1.10 1.45	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_R \text{ Rated}; T_j=25^{\circ}\text{C}$ $V_R=V_R \text{ Rated}; T_j=150^{\circ}\text{C}$	1 0.35	μA mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=60\text{A}; V_R=150\text{V};$ $di/dt=200\text{A}/\mu\text{s}$	35	ns

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