

Fast Recovery Rectifier

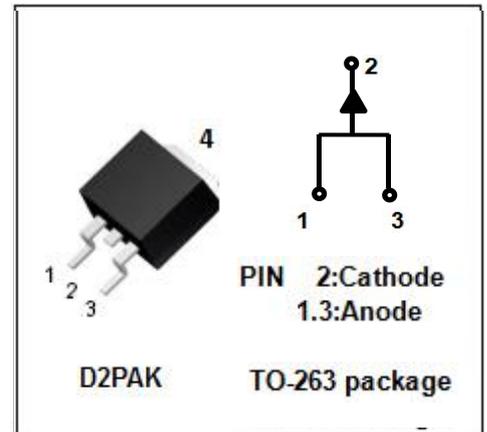
DHG30IM600PC

FEATURES

- With TO-263(D²PAK) Package
- Very short recovery time
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

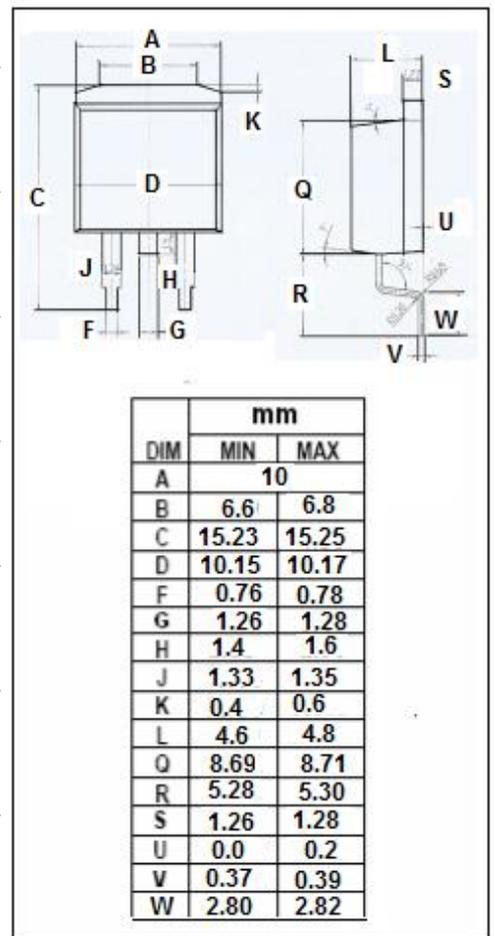
APPLICATIONS

- Anti-parallel diode for high frequency switching devices
- Uninterruptible Power Supplies (UPS)
- Rectifiers in switch mode power supplies (SMPS)



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RRWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
I _{F(AV)}	Average Rectified Forward Current	30	A
I _{FSM}	Nonrepetitive Peak Surge Current@45°C (Surge applied at rated load conditions half-wave, single phase, 60Hz)	200	A
P _D	Maximum power dissipation	210	W
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.6	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F^*	Maximum Instantaneous Forward Voltage	$I_F=30A; T_J=25^{\circ}C$ $I_F=30A; T_J=125^{\circ}C$ $I_F=60A; T_J=25^{\circ}C$ $I_F=60A; T_J=125^{\circ}C$	2.26 2.22 3.11 3.20	V
I_R^*	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_J=25^{\circ}C$ $V_R=V_{RWM}; T_J=125^{\circ}C$	50 4000	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=35A; di/dt=60A/\mu s$	35	ns

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