

Fast Recovery Rectifier
DPG30C300PC
FEATURES

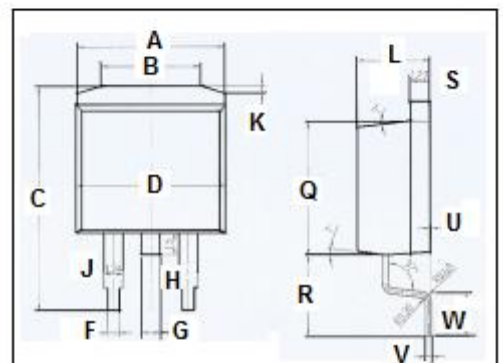
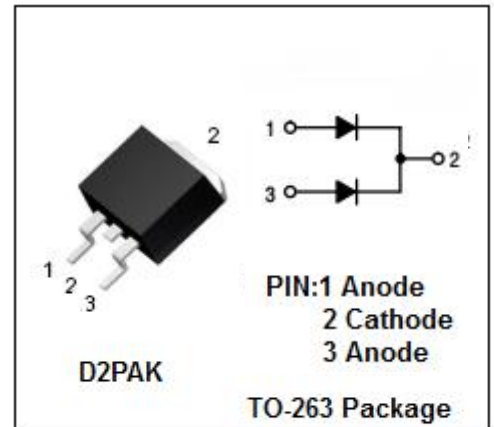
- Ultrafast with soft recovery
- Very low leakage current
- Avalanche energy rated
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters

ABSOLUTE MAXIMUM RATINGS (T_a=25°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 Per Leg Total device	15 30	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 50Hz)	240	A
P _D	Maximum power dissipation	90	W
T _J	Junction Temperature	-55~175	°C
T _{stg}	Storage Temperature Range	-55~150	°C



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.7	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Instantaneous Forward Voltage	$I_F=15\text{A}; T_j=25^\circ\text{C}$ $I_F=15\text{A}; T_j=150^\circ\text{C}$ $I_F=30\text{A}; T_j=25^\circ\text{C}$ $I_F=30\text{A}; T_j=150^\circ\text{C}$	1.26 1.01 1.51 1.29	V
I_R	Instantaneous Reverse Current	$V_R=V_{RWM};$ $V_R=V_{RWM}; T_j=150^\circ\text{C}$	1 80	μ A
t_{rr}	Reverse Recovery Time	$I_F=15\text{A}; V_R=200\text{V}; di/dt=200\text{A}/\mu\text{s};$ $T_j=25^\circ\text{C}$	35	ns

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