

Fast Recovery Rectifier

DPG30C300PC

FEATURES

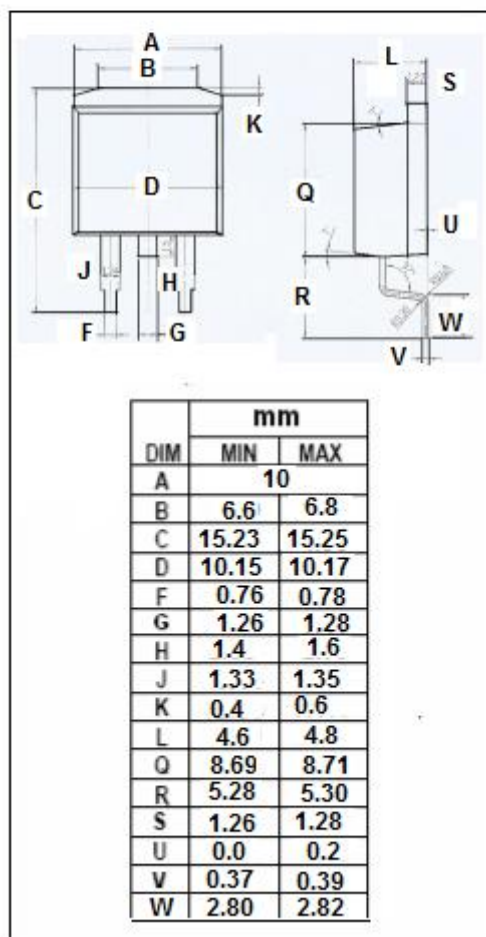
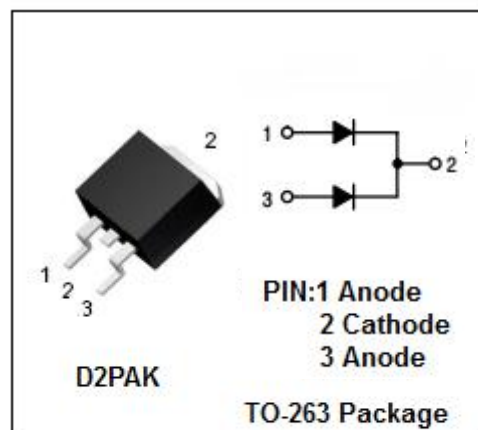
- Ultrafast with soft recovery
- Very low leakage current
- Avalanche energy rated
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters

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

| 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 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 | $^{\circ}\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^{\circ}\text{C}$ |



Fast Recovery Rectifier**DPG30C300PC****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 μs , 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 | μA |
| 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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