

Fast Soft Recovery Diode

60A 1200V trr ~ 45 ns

Features

Ultrafast Soft Recovery
 175°C operating junction temperature
 Low Forward Voltage
 Low Leakage Current

Applications

Freewheeling , Clamp
 Snubber Diode
 Switch Mode Power Supply
 Motor Control
 Inverters , Converters



Absolute Maximum Ratings T_c = 25 °C unless otherwise noted

| Symbol | Parameter | Values | Units |
|--------------------|--|-------------|-------|
| V _R | Cathode – Anode voltage | 1200 | V |
| I _{F(AV)} | Average Rectified Forward Current | 60 | A |
| I _{FSM} | Nonrepetitive Peak Surge Current@8.3ms | 600 | A |
| T _J | Operating Temperature Range | 175 | °C |
| T _{STG} | Storage Temperature | -55 to +175 | °C |

Thermal characteristics

| Symbol | Parameter | Values | Units |
|------------------|--|--------|-------|
| R _{θja} | Thermal Resistance, Junction -to-ambient | 40 | °C/W |
| R _{θJC} | Thermal Resistance, Junction-to-Case | 0.32 | °C/W |

Electrical Characteristics T_J = 25 °C unless otherwise noted

| Symbol | Parameter | Test Conditions | Min | Typ | Max | Units |
|-----------------|-------------------------|---|------|------|-----|-------|
| V _{BR} | Breakdown Voltage | I _R = 100 uA | 1200 | -- | -- | V |
| V _F | Forward voltage | I _F = 60 A, T _J = 25 °C | -- | 2.0 | 2.4 | V |
| | | I _F = 60 A, T _J = 125 °C | -- | 1.70 | 2.2 | V |
| I _R | Reverse Leakage Current | V _R = V _R rated | -- | -- | 50 | uA |
| | | V _R = V _R rated, T _J = 150 °C | -- | -- | 250 | uA |
| trr | Reverse recovery time | I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A | -- | 45 | 60 | ns |
| | | I _F = 1A, V _R = 30V, di/dt = -200A/us | -- | 40 | -- | ns |