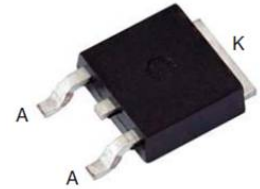


Features

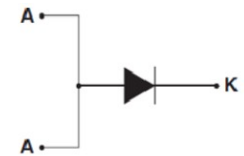
- FRED (Planar) wafer construction
- Super fast recovery time
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory
 Flammability Classification 94V-0



TO-252 (DPAK)

Mechanical Data

- Case: Epoxy, Molded
- Weight: 0.4grams(approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 2500 units per reel



Schematic Diagram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise specified)

| Parameter | Test Conditions | | Symbol | Value | Unit |
|--|---|-----------------------|--------------------|------------|-------|
| Maximum Repetitive Peak Reverse Voltage | | | V _{RRM} | 400 | V |
| Working Peak Reverse Voltage | | | V _{RWM} | 400 | V |
| Maximum DC Blocking Voltage | | | V _{DC} | 400 | V |
| Maximum Average Forward Rectified Current at T _c =105°C Total Device per Diode | | | I _{F(AV)} | 10 | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load per Diode | | | I _{FSM} | 100 | A |
| Voltage Rate of Change (Rated V _R) | | | DV/dt | 10000 | V/us |
| Operating Junction Temperature Range | | | T _J | -55 to+150 | °C |
| Storage Temperature Range | | | T _{STG} | -55 to+150 | °C |
| Maximum Reverse Recover Time (I _F =0.5Amp, I _R =1.0Amp, I _{rec} =0.25Amp) | T _{rr} | | T _{rr} | 35 | ns |
| Maximum Instantaneous Forward Voltage per Leg | I _F =10A | T _c =25°C | V _F | 1.40 | V |
| | I _F =10A | T _c =125°C | | 1.30 | |
| Maximum reverse current per leg at working peak Reverse voltage | T _J =25°C | | I _R | 10 | uA |
| | T _J =100°C | | | 500 | uA |
| Thermal Characteristics T_A=25°C unless otherwise noted | | | | | |
| Symbol | Parameter | | Typ. (TO-252) | | Unit |
| R _{θJC} | Thermal Resistance, Junction to Case per Leg | | 3.5 | | °C /W |
| R _{θJA} | Thermal Resistance, Junction to Ambient per Leg | | 62.5 | | °C /W |

Note: Pulse test:300us pulse width, duty cycle=2%

Ratings and Characteristics Curves

($T_A=25^\circ\text{C}$ unless otherwise specified)

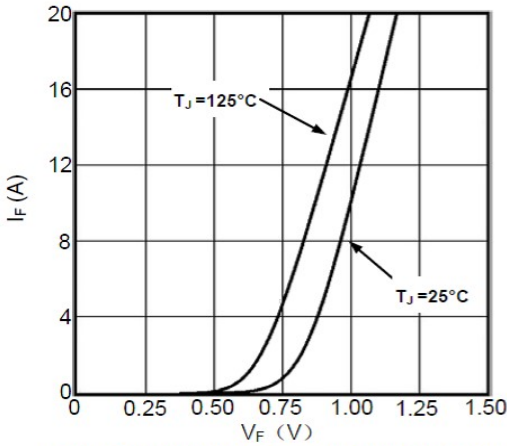


Fig1. Forward Voltage Drop vs Forward Current

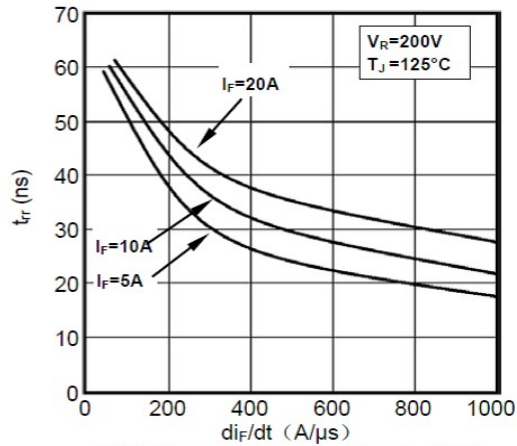


Fig2. Reverse Recovery Time vs di_F/dt

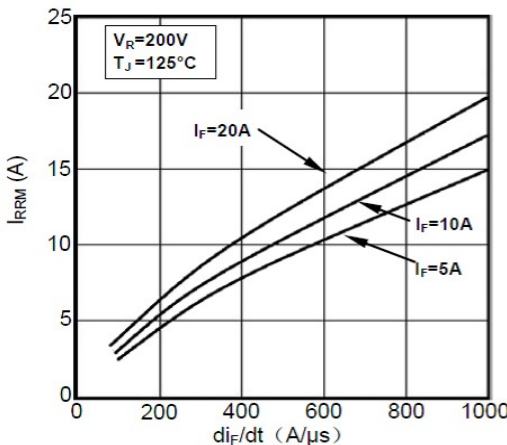


Fig3. Reverse Recovery Current vs di_F/dt

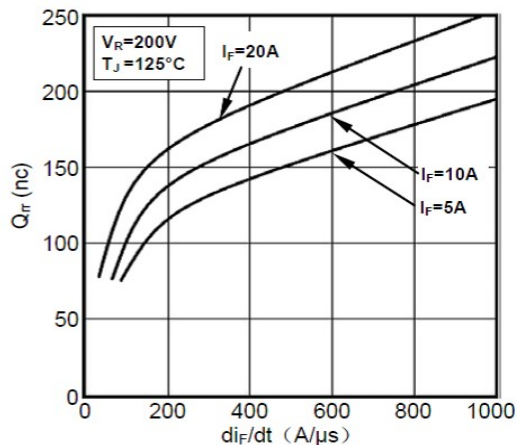


Fig4. Reverse Recovery Charge vs di_F/dt

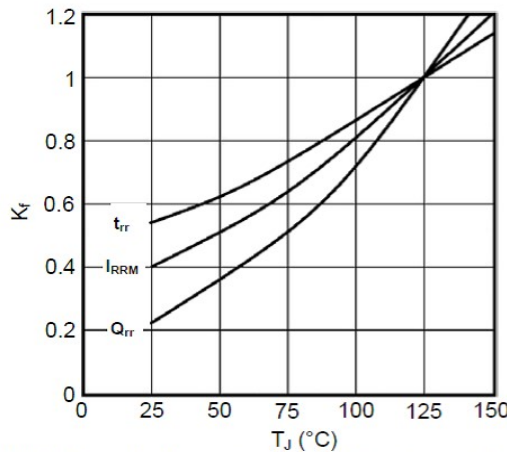


Fig5. Dynamic Parameters vs Junction Temperature

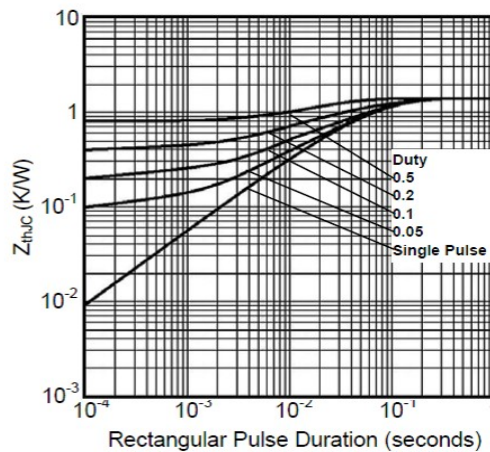


Fig6. Transient Thermal Impedance

Package Outline Dimensions Unit: millimeters
TO-252(D-PAK)

