



RD2004LN — Diffused Junction Silicon Diode

Ultrahigh-Speed Switching Diode

Features

- High breakdown voltage ($V_{RRM}=400V$).
- High reliability.
- One-point fixing type plastic molded package facilitating easy mounting and heat dissipation.
- Fast reverse recovery time.
- Low noise at the time of reverse recovery.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|------------------------------|-------------|------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 400 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | 400 | V |
| Average Output Current | I_O | | 20 | A |
| Surge Forward Current | I_{FSM} | Sine wave, 10ms single pulse | 180 | A |
| Junction Temperature | T_j | | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ C$ |

Electrical Characteristics at $T_a=25^\circ C$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-----------------------|---------------|-----------------------------|---------|-----|-----|--------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=1mA$ | 400 | | | V |
| Forward Voltage | V_F | $I_F=20A$ | | 1.3 | 1.5 | V |
| Reverse Current | I_R | $V_R=400V$ | | | 100 | μA |
| Reverse Recovery Time | t_{rr1} | $I_F=10A, di/dt=100A/\mu s$ | | 44 | 50 | ns |
| | t_{rr2} | $I_F=0.5A, I_R=1A$ | | 20 | | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Junction-Case : Smoothed DC | | | 4.0 | $^\circ C/W$ |

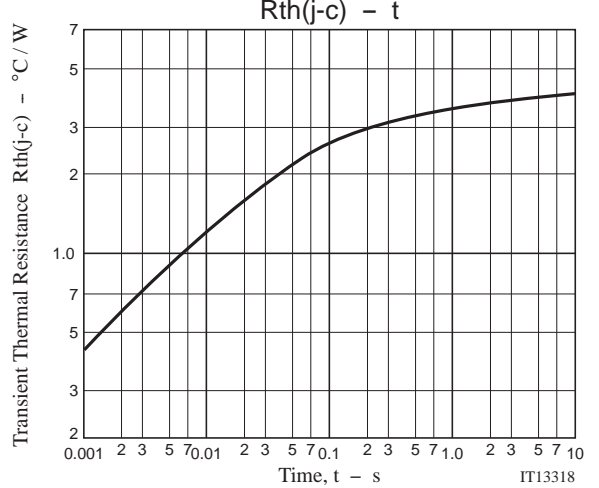
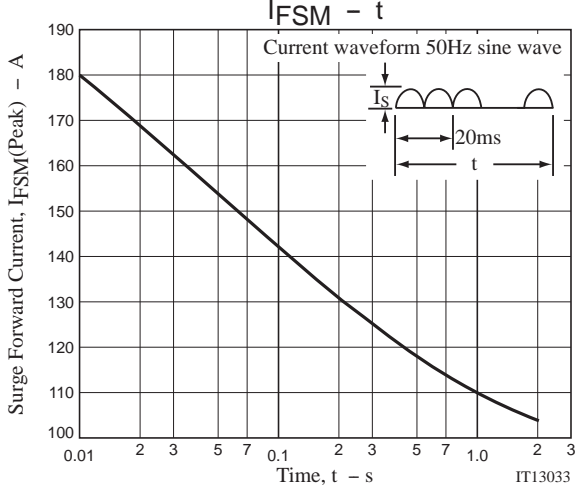
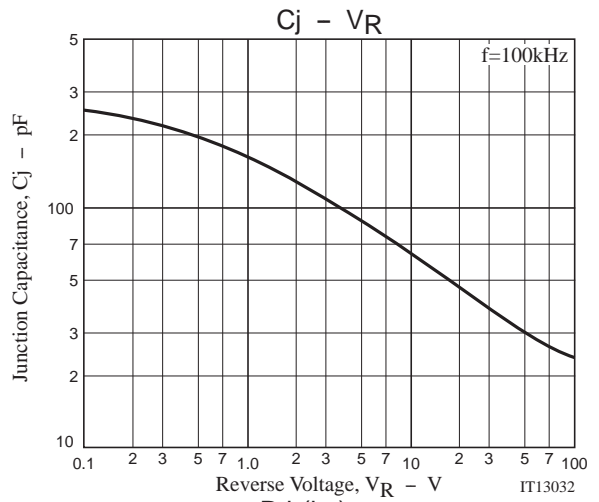
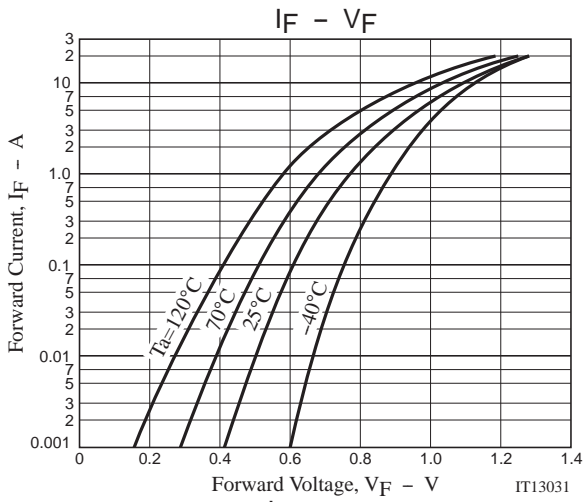
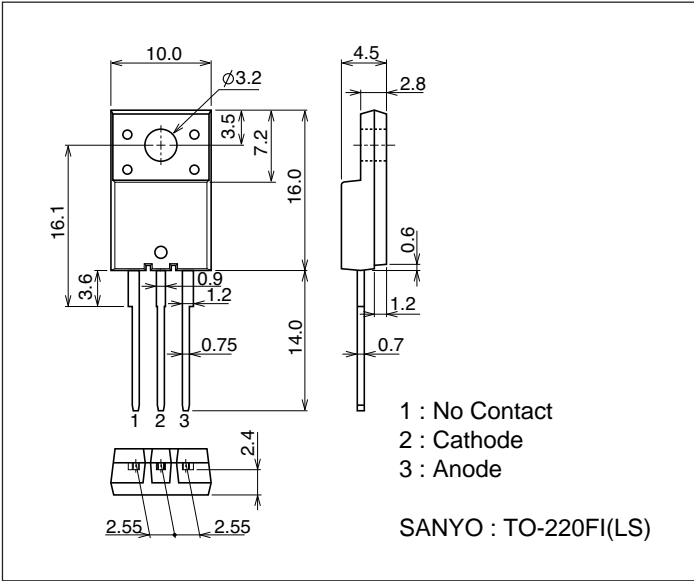
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Package Dimensions

unit : mm (typ)

7509-004



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