



SANYO Semiconductors

DATA SHEET

RD0506LS-SB5

Diffused Junction Silicon Diode
Ultrahigh-Speed Switching Diode

Features

- High breakdown voltage ($V_{RRM}=600V$).
- High reliability.
- Easy to be mounted, good 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} | | 600 | V |
| Average Output Current | I_O | | 5 | A |
| R.M.S Forward Current | $I_F(RMS)$ | $T_c=25^\circ C$ (SANYO's ideal heat dissipation condition) Package limited | 12 | A |
| Surge Forward Current | I_{FSM} | Sine wave, 10ms single pulse | 120 | 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 | $I_R=1mA$ | 600 | | | V |
| Forward Voltage | V_F | $I_F=5A$ | | 1.3 | 1.6 | V |
| Reverse Current | I_R | $V_R=600V$ | | | 50 | μA |
| Reverse Recovery Time | t_{rr1} | $I_F=5A, di/dt=100A/\mu s$ | | 44 | 50 | ns |
| | t_{rr2} | $I_F=0.5A, I_R=1A$ | | 17 | | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Between the junction part and the case : smoothing current | | | 6.25 | $^\circ C / W$ |

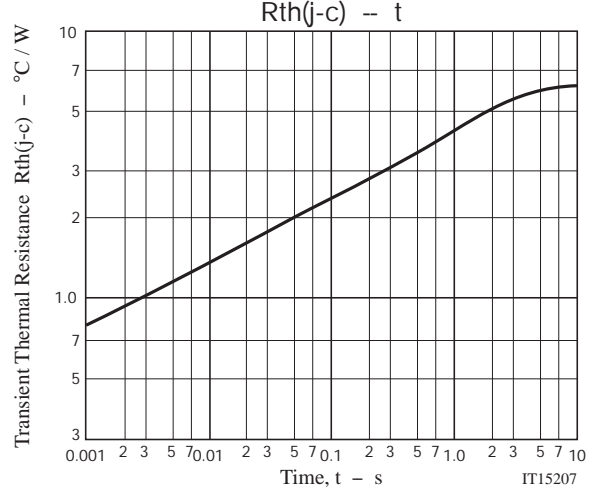
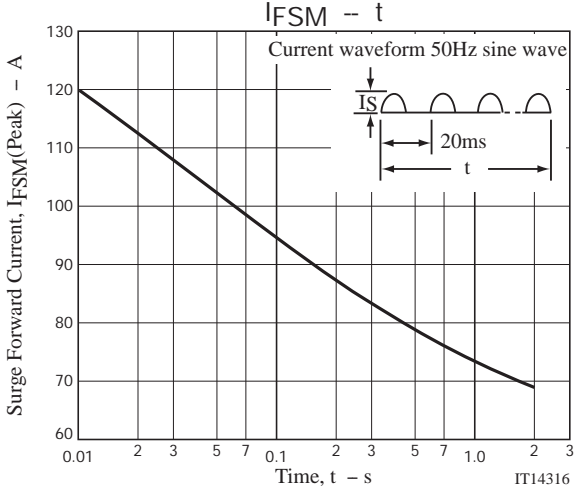
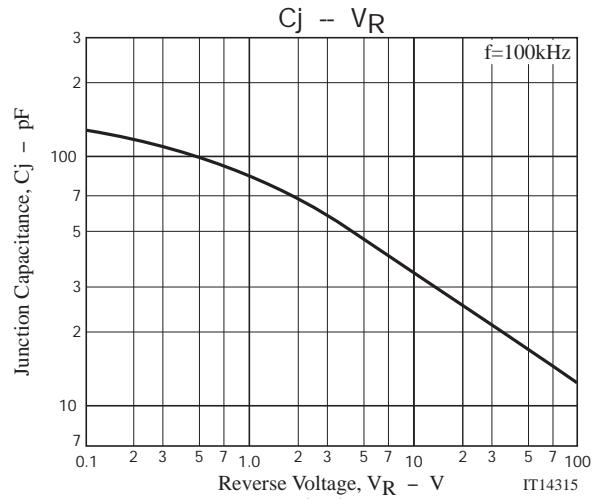
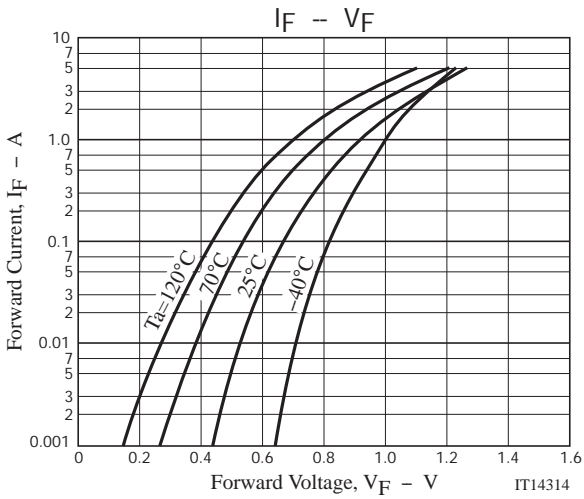
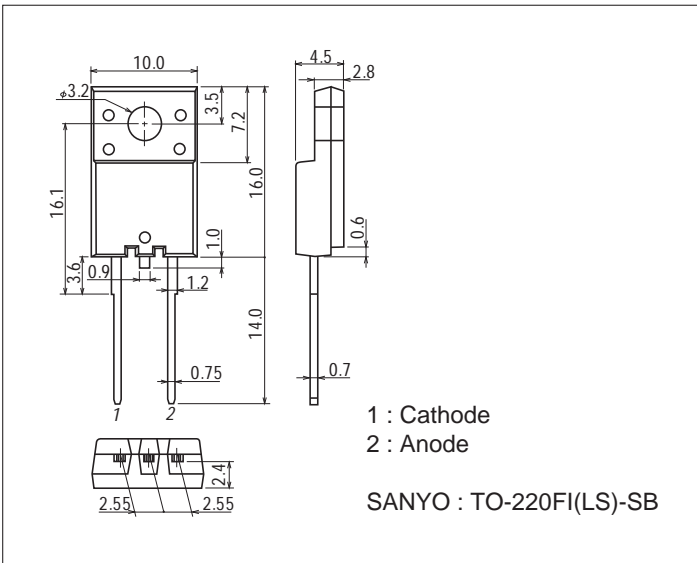
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Package Dimensions

unit : mm (typ)

7510-001



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