



SANYO Semiconductors

DATA SHEET

RD0506T — Diffused Junction Silicon Diode

Low VF · High-Speed Switching Diode

Features

- High breakdown voltage ($V_{RRM}=600V$).
- Fast reverse recovery time.
- Low noise at the time of reverse recovery.
- Low forward voltage ($V_F \text{ max}=1.6V$).
- Halogen free compliance.

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 |
| Surge Forward Current | I_{FSM} | Sine wave 10ms, 1 cycle | 80 | A |
| Junction Temperature | T_j | | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ C$ |

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

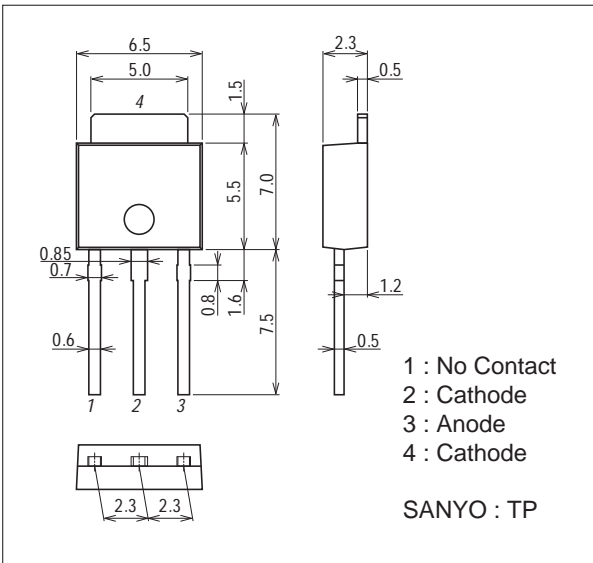
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-----------------------|---------------|----------------------------|---------|-----|-----|----------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=1mA$ | 600 | | | V |
| Forward Voltage | V_F | $I_F=5A$ | | 1.3 | 1.6 | V |
| Reverse Current | I_R | $V_R=600V$ | | | 50 | μA |
| Reverse Recovery Time | t_{rr1} | $I_F=5A, di/dt=100A/\mu s$ | | 40 | 50 | ns |
| | t_{rr2} | $I_F=0.5A, I_R=1A$ | | 16 | | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Junction -Case | | 6 | | $^\circ C / W$ |

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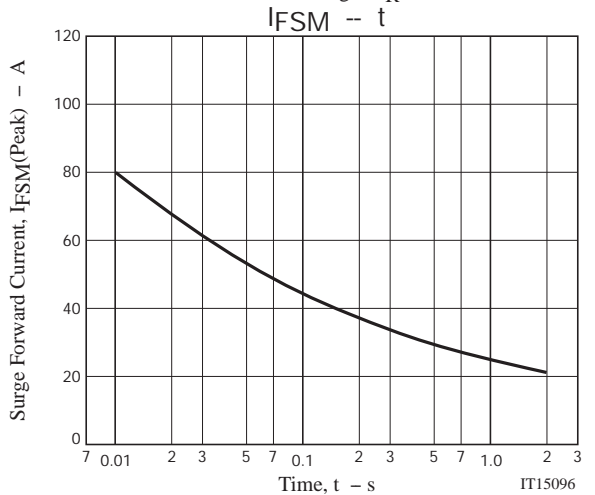
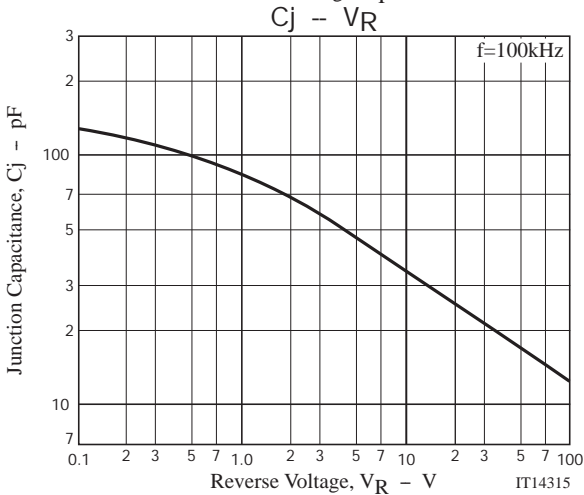
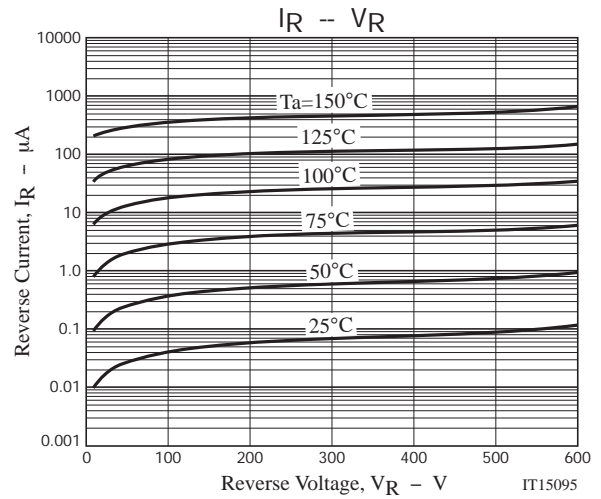
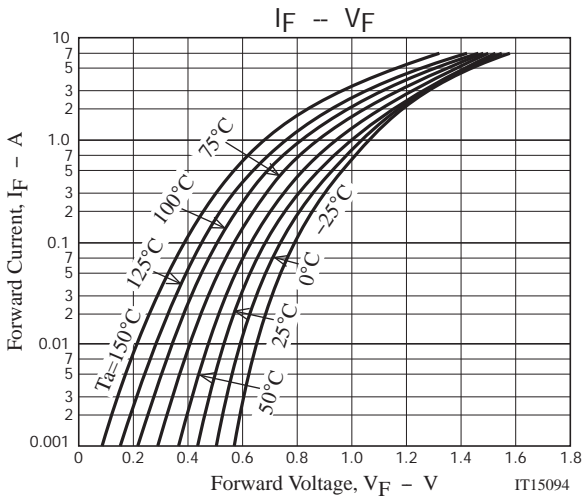
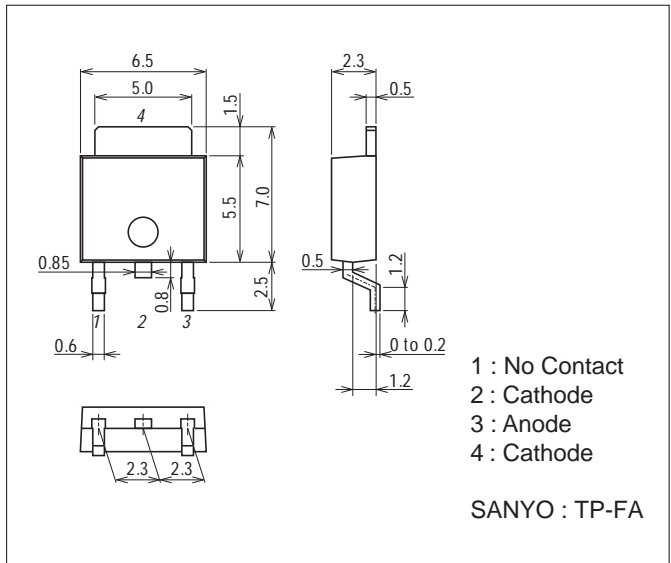
Package Dimensions

unit : mm (typ)
7518-002



Package Dimensions

unit : mm (typ)
7003-001



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