



SANYO Semiconductors

## DATA SHEET

# 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	$\mu A$
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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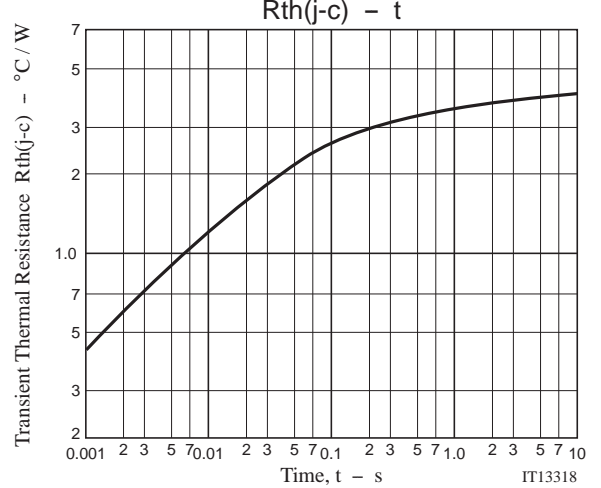
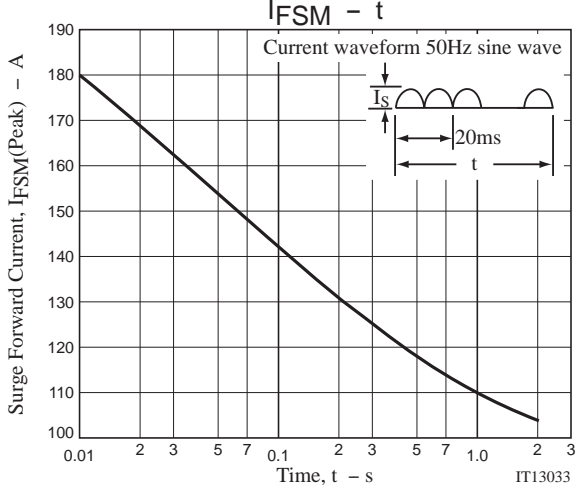
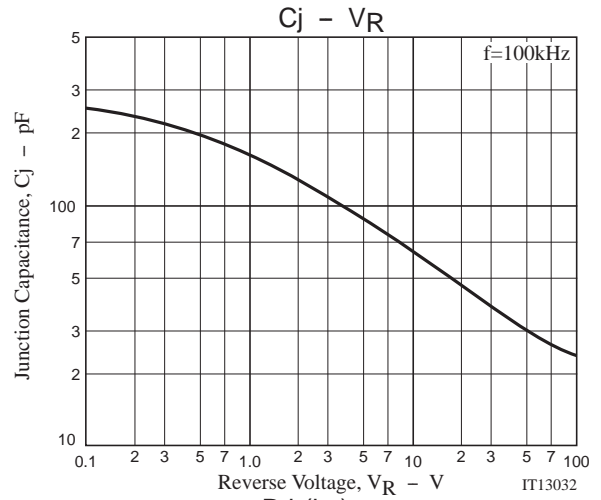
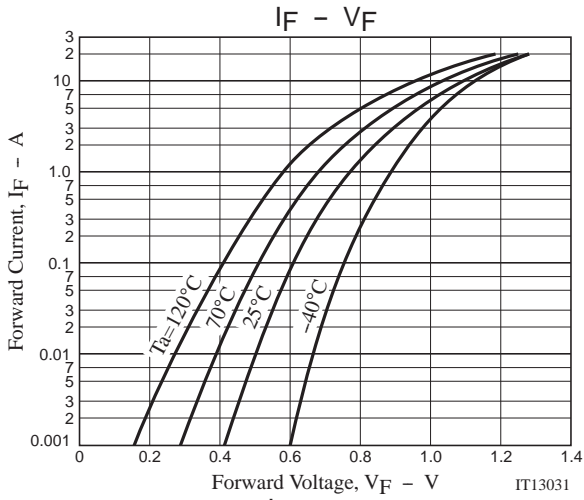
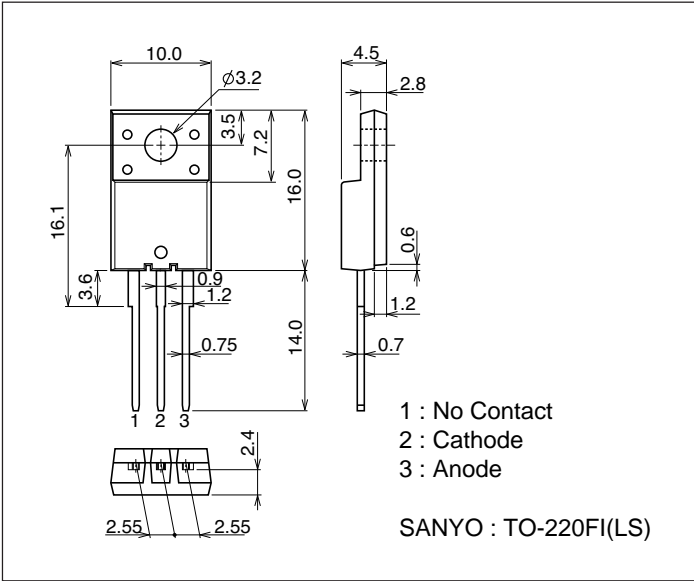
**SANYO Semiconductor Co., Ltd.**

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Package Dimensions

unit : mm (typ)

7509-004



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