



SANYO Semiconductors

DATA SHEET

RG2006LN — Diffused Junction Silicon Diode

Low VF · High-Speed Switching Diode

Features

- High breakdown voltage ($V_{RRM}=600V$).
- High reliability.
- One-point fixing type plastic mold 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}		600	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		600	V
Average Output Current	I_O		20	A
Peak Output Current	I_{OP}	$PW \leq 100\mu s$, duty cycle $\leq 50\%$	40	A
Surge Forward Current	I_{FSM}	Sine wave, 10ms	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	$I_R=1mA$	600			V
Forward Voltage	V_{F1}	$I_F=10A$		1.45	1.6	V
	V_{F2}	$I_F=20A$		1.8	2.1	V
Reverse Current	I_R	$V_R=600V$			100	μA
Reverse Recovery Time	t_{rr1}	$I_F=10A$, $d_i / dt=100A/\mu s$			50	ns
	t_{rr2}	$I_F=0.5A$, $I_R=1A$		16		ns
Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC			3.22	$^\circ C / W$

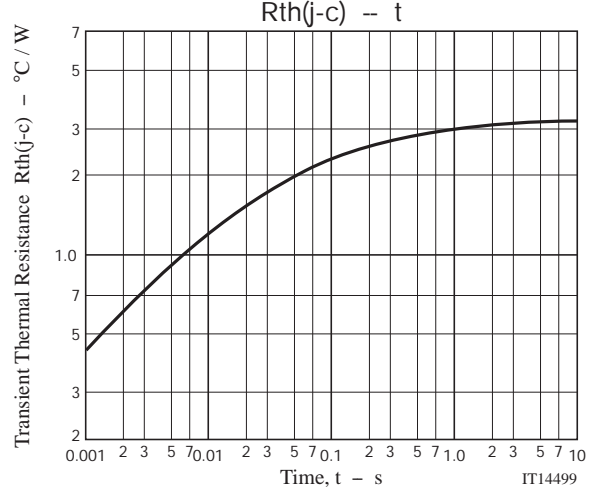
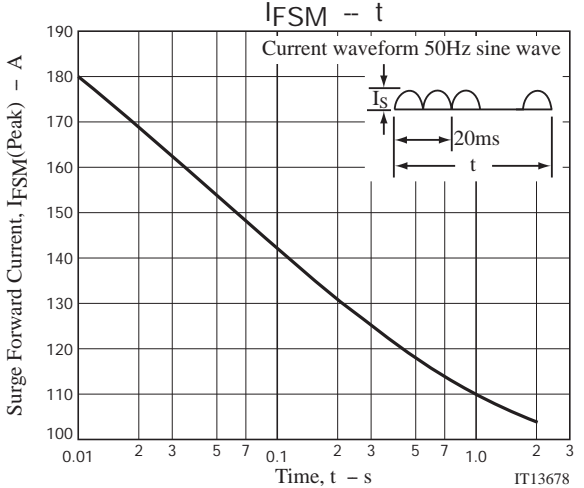
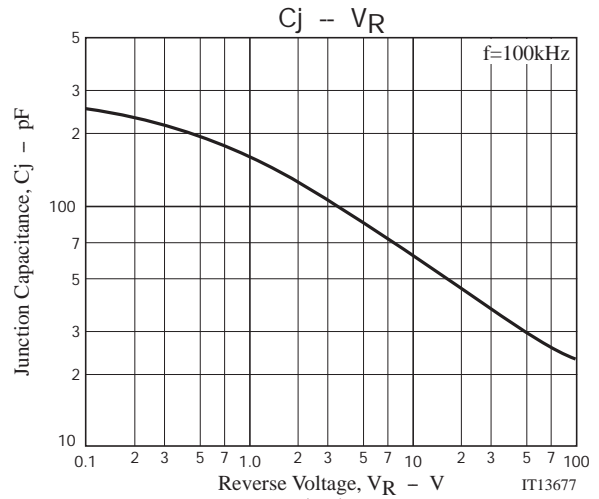
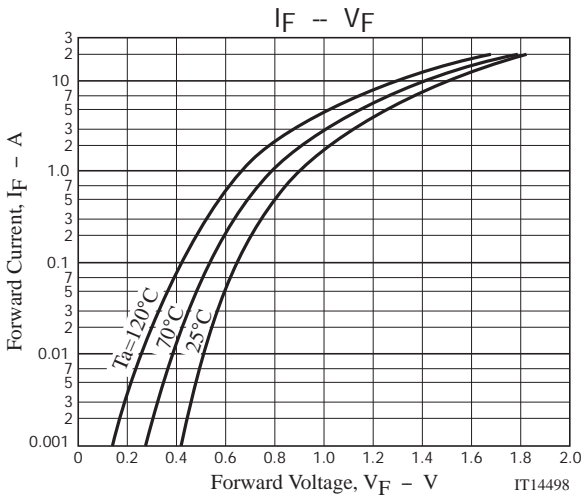
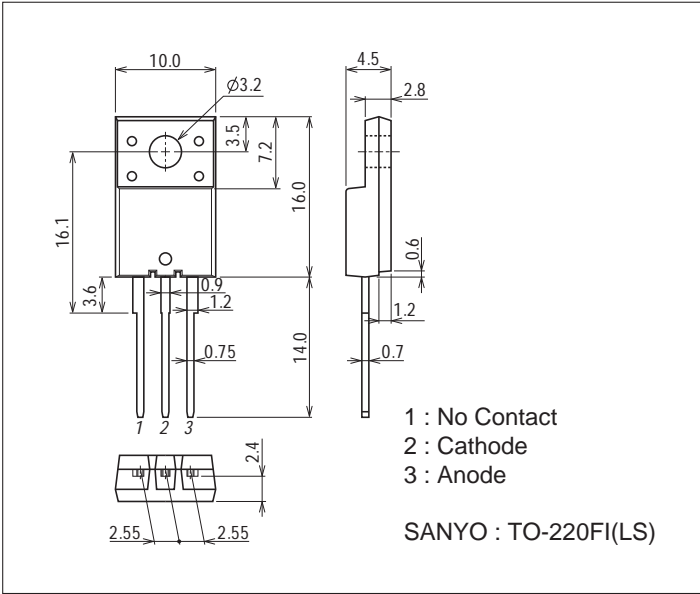
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Package Dimensions

unit : mm (typ)

7509-004



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