


SANYO Semiconductors

DATA SHEET

RD0506T — Diffused Junction Silicon Diode

Low V_F · 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		$^\circ C / W$

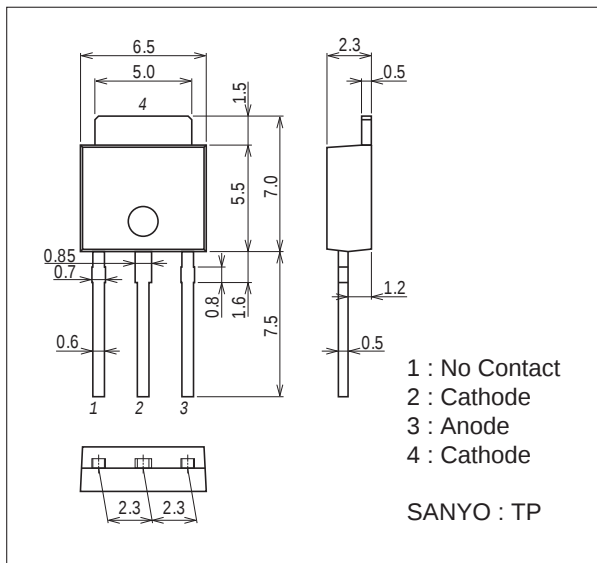
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Package Dimensions

unit : mm (typ)

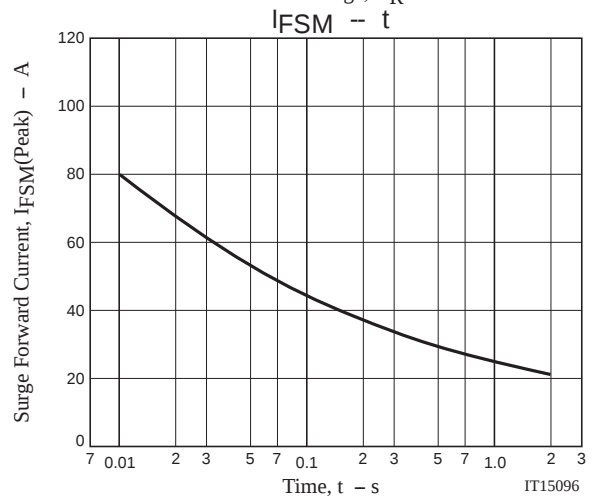
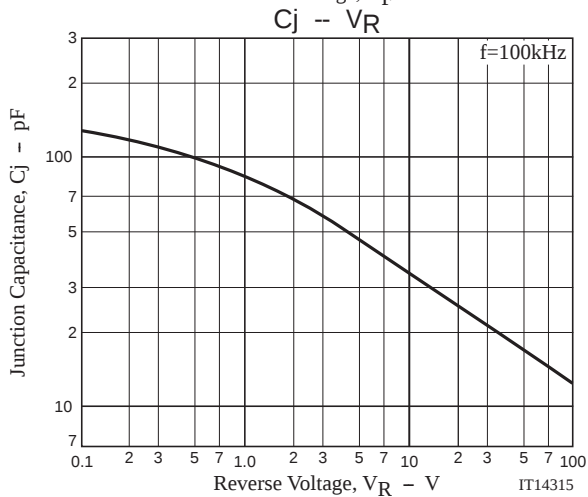
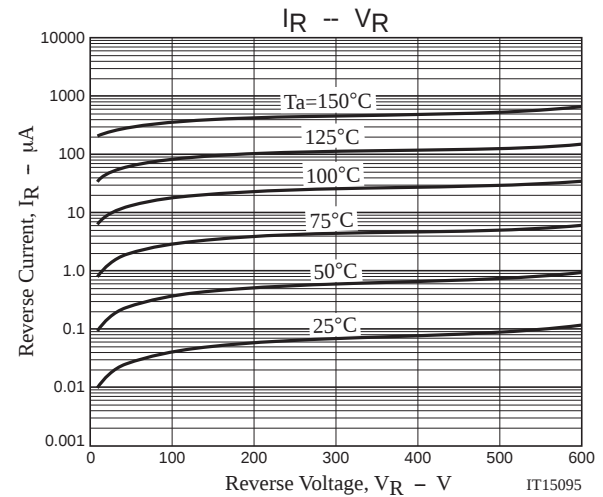
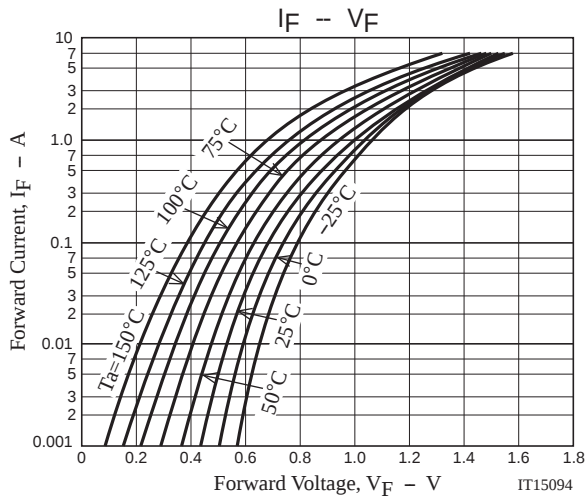
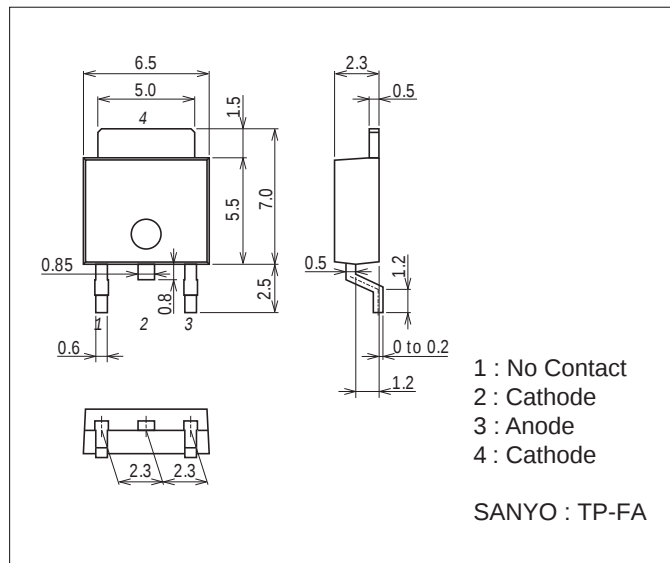
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Package Dimensions

unit : mm (typ)

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