



SANYO Semiconductors

DATA SHEET

UD1006FR — Diffused Junction Silicon Diode

Low VF Switching Diode

Features

- $V_{RRM}=600V$.
- $t_{rr}=60ns$ (typ) ($I_F=0.5A$, $I_R=1A$).
- $V_F=1.3V$ max ($I_F=10A$).
- Halogen free compliance

Specifications

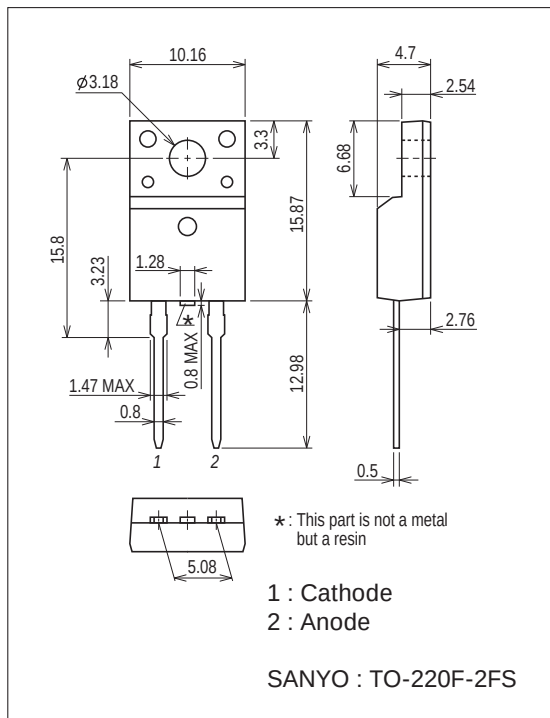
Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		600	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		600	V
Average Output Current	I_O	50Hz resistive load, Sine wave $T_c=79^\circ C$	10	A
R.M.S Forward Current	$I_F(RMS)$	$T_c=25^\circ C$ (SANYO's ideal heat dissipation condition) Package limited	18	A
Surge Forward Current	I_{FSM}	Sine wave 10ms 1pulse	120	A
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Package Dimensions

unit : mm (typ)

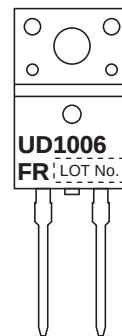
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Product & Package Information

- Package : TO-220F-2FS
- JEITA, JEDEC : SC-67
- Minimum Packing Quantity : 50pcs./magazine

Marking



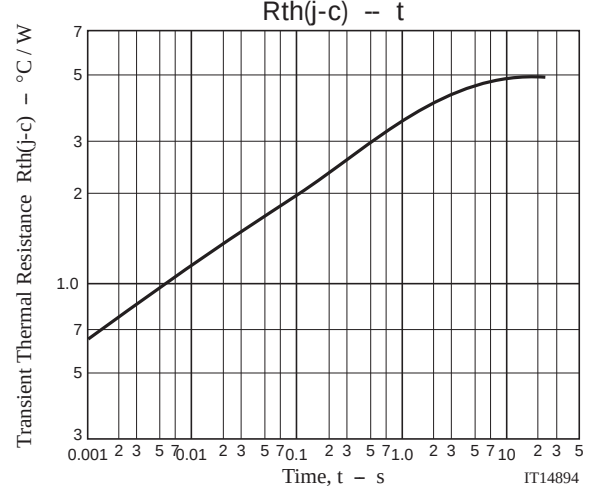
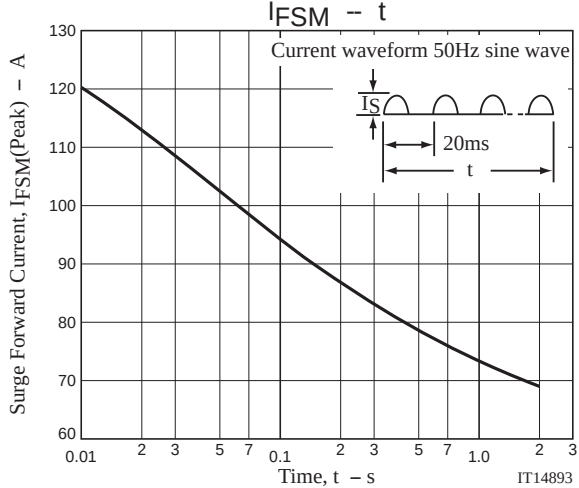
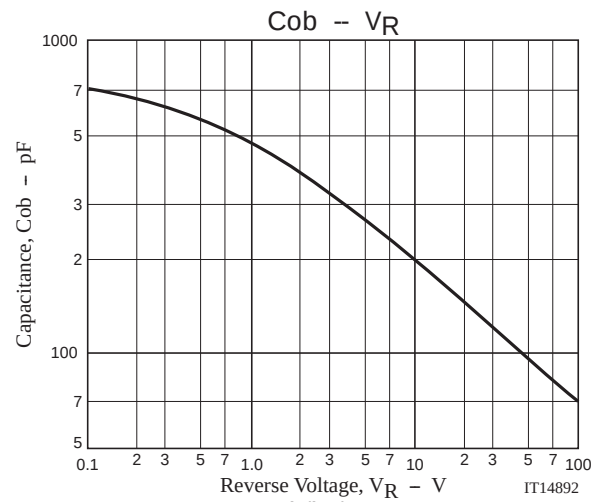
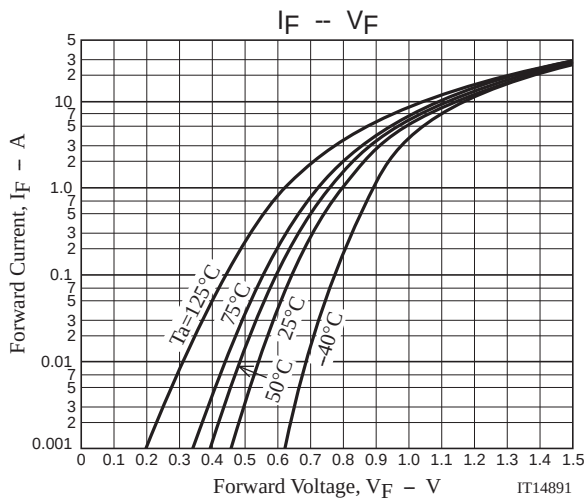
Electrical Connection



UD1006FR

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1\text{mA}$	600			V
Forward Voltage	V_F	$I_F=10\text{A}$		1.1	1.3	V
Reverse Current	I_R	$V_R=600\text{V}$			100	μA
Reverse Recovery Time	t_{rr1}	$I_F=10\text{A}$, $di/dt=100\text{A}/\mu\text{s}$		100	150	ns
	t_{rr2}	$I_F=0.5\text{A}$, $I_R=1\text{A}$		60		ns
Thermal Resistance	$R_{th(j-c)}$	Junction -Case : Smoothed DC			4.9	$^{\circ}\text{C} / \text{W}$



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