



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

UD2006FR — Diffused Junction Silicon Diode Low VF Switching Diode

Features

- $V_F=1.4V$ max. ($I_F=20A$)
- $V_{RRM}=600V$
- $t_{TR}=60ns$ (typ.)

Specifications

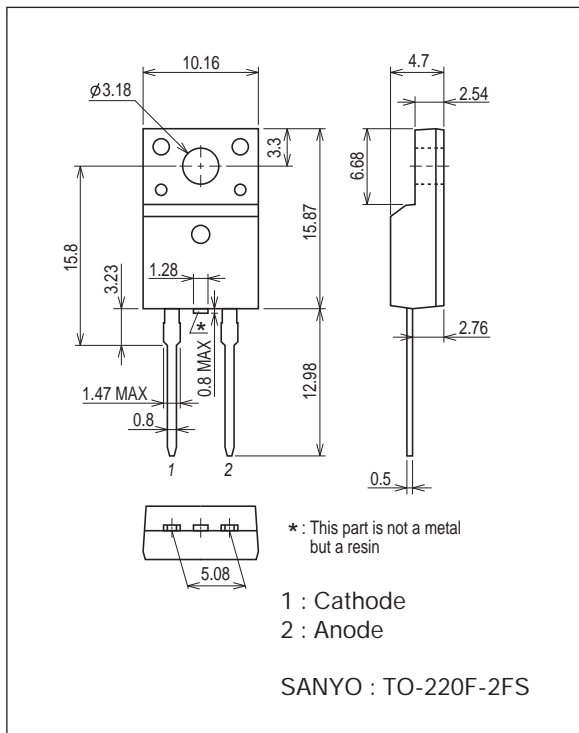
Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	DC bias	600	V
Average Output Current	I_O	50Hz resistive load, Sine wave $T_c=32^\circ C$	20	A
R.M.S Forward Current	$I_F(RMS)$	$T_c=25^\circ C$ (SANYO's ideal heat dissipation condition) Package limited, DC	24	A
Surge Forward Current	I_{FSM}	50Hz sine wave 1pulse	180	A
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Package Dimensions

unit : mm (typ)

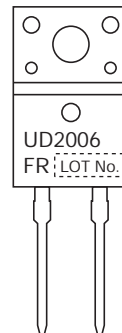
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Product & Package Information

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

Marking



Electrical Connection



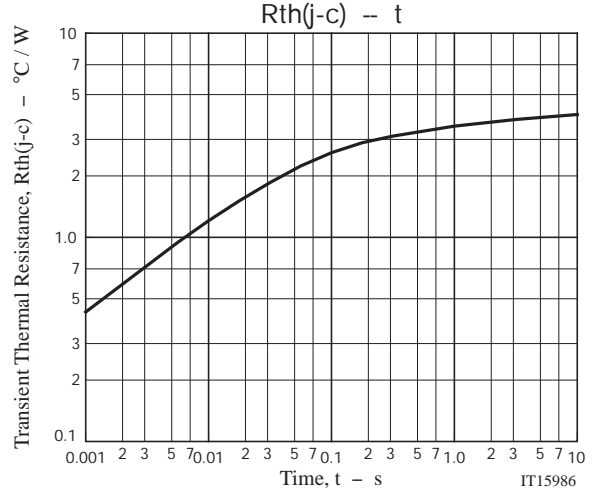
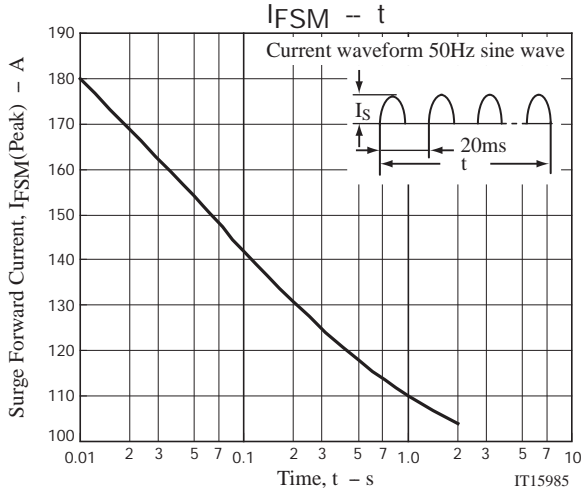
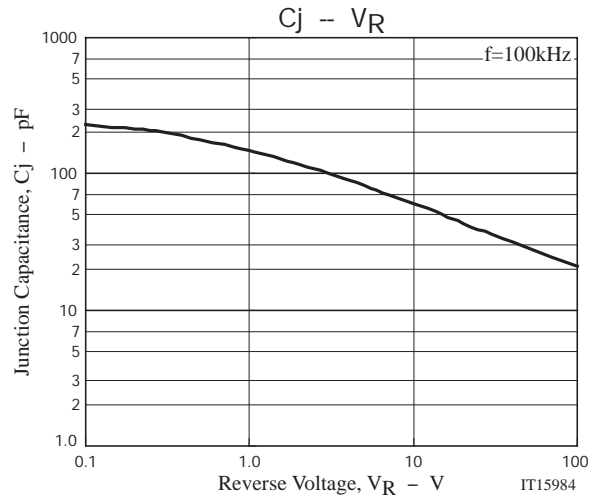
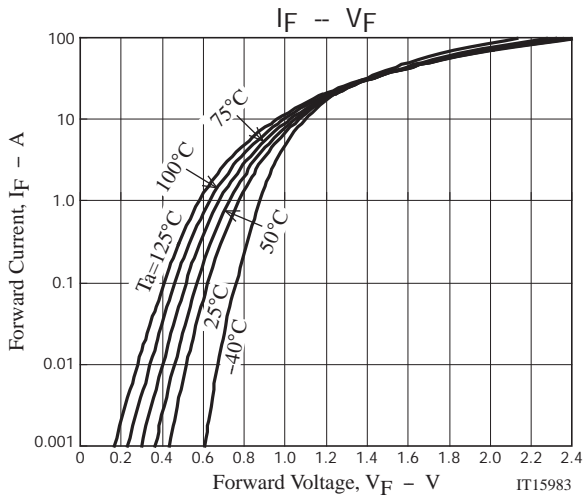
UD2006FR

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	$I_F=20\text{A}$		1.2	1.4	V
Reverse Current	I_R	$V_R=600\text{V}$			20	μA
Reverse Recovery Time	t_{rr1}	$I_F=10\text{A}$, $di/dt=100\text{A}/\mu\text{s}$		75	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	$^\circ\text{C} / \text{W}$

Electrical Characteristics at $T_a=125^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Current	I_R	$V_R=600\text{V}$			200	μA



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