



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

RD2006FR — Diffused Junction Silicon Diode Ultrahigh-Speed Switching Diode

Features

- $V_F=1.75V$ max ($I_F=20A$)
- $V_{RRM}=600V$
- $t_{rr}=21ns$ (typ.)
- Halogen free compliance

Specifications

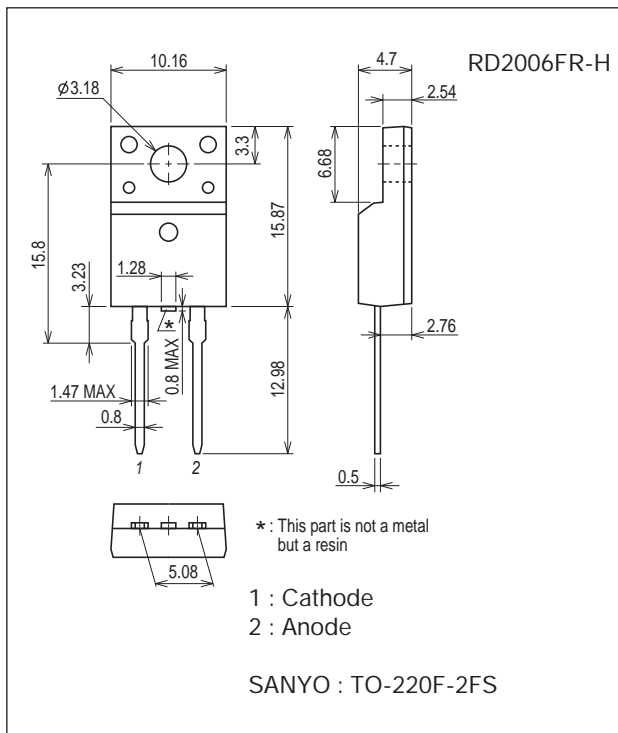
Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	DC bias	600	V
Average Output Current	I_O		20	A
Surge Forward Current	I_{FSM}	Sine wave, 10ms single pulse	220	A
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Package Dimensions

unit : mm (typ)

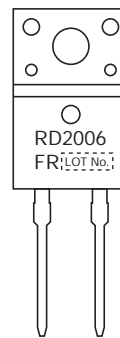
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Product & Package Information

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

Marking



Electrical Connection



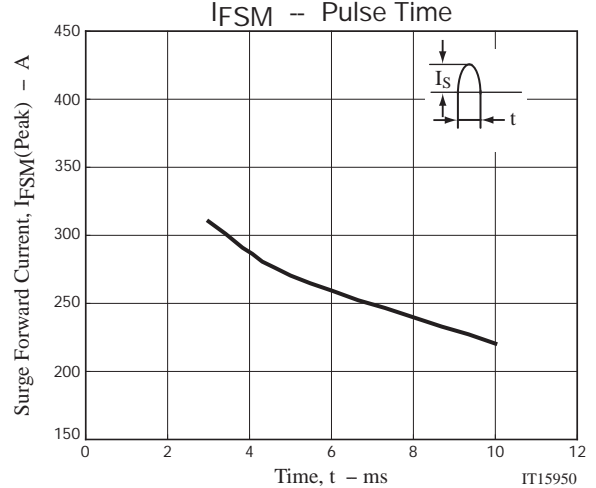
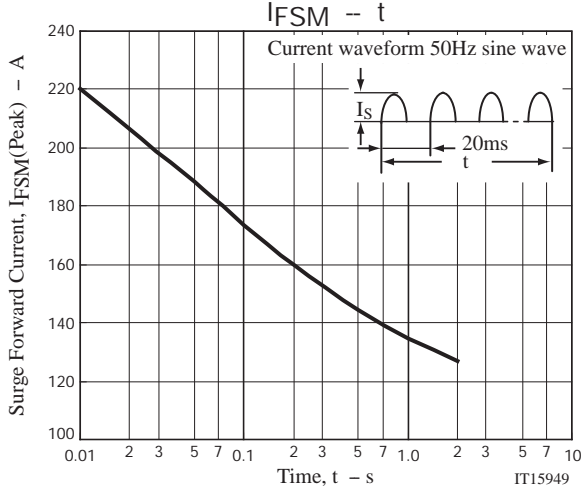
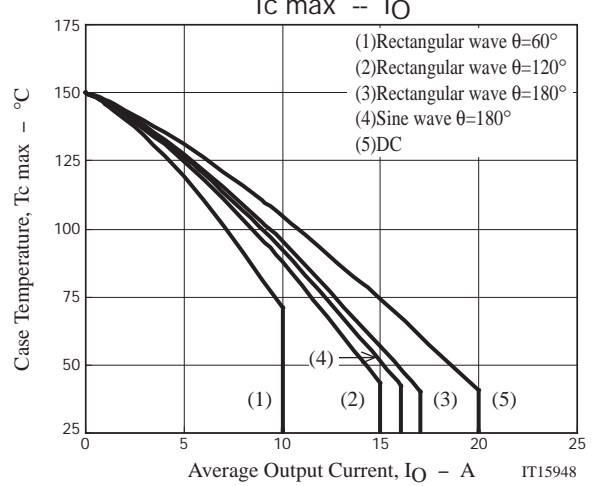
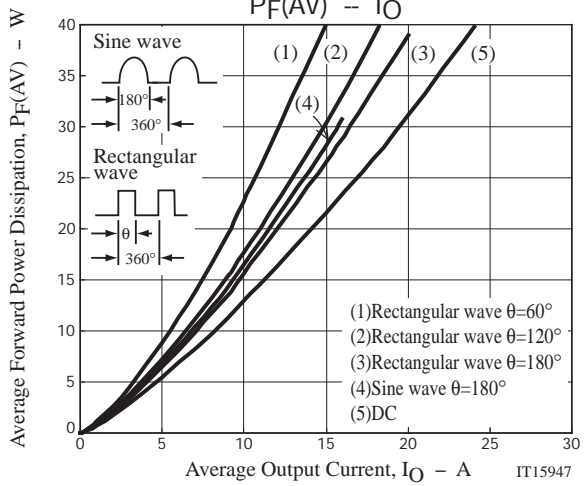
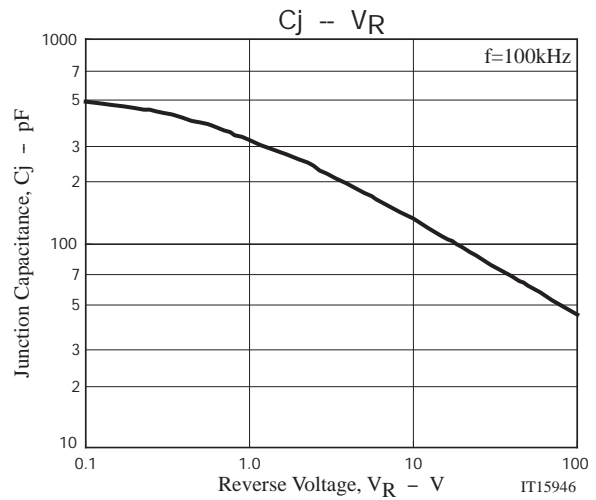
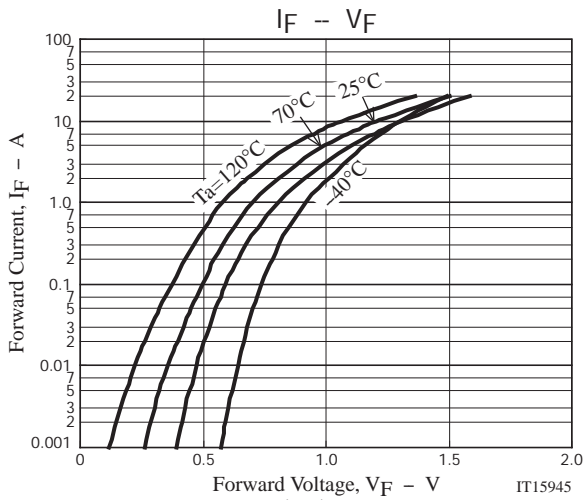
RD2006FR

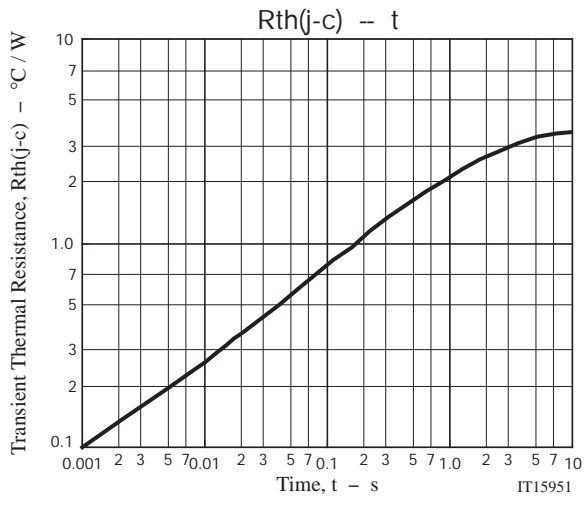
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1mA$	600			V
Forward Voltage	V_F	$I_F=20A$		1.6	1.75	V
Reverse Current	I_R	$V_R=600V$			100	μA
Reverse Recovery Time	t_{rr1}	$I_F=10A, di/dt=100A/\mu s$			50	ns
	t_{rr2}	$I_F=0.5A, I_R=1A$		21		ns
Thermal Resistance	$R_{th(j-c)}$	Between the junction part and the case smoothing current			3.5	$^{\circ}C/W$

Ordering Information

Device	Package	Shipping	memo
RD2006FR-H	TO-220F-2FS	50pcs./magazine	Pb Free and Halogen Free





RD2006FR

Magazine Specification

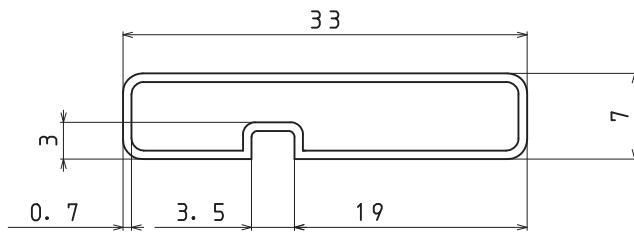
RD2006FR-H

1. Packing Format

Package Name	Magazine Name	Maximum Number of devices contained (pcs)			Packing format	
		Magazine	Inner box	Outer box	Inner BOX	Outer BOX
TO-220F-2FS	TO-220F	50	1,000	4,000	SPD-0V0001 20 magazines contained Dimensions:mm (external) 568×150×55	SPT-081029 4 inner boxes contained Dimensions:mm (external) 590×225×178

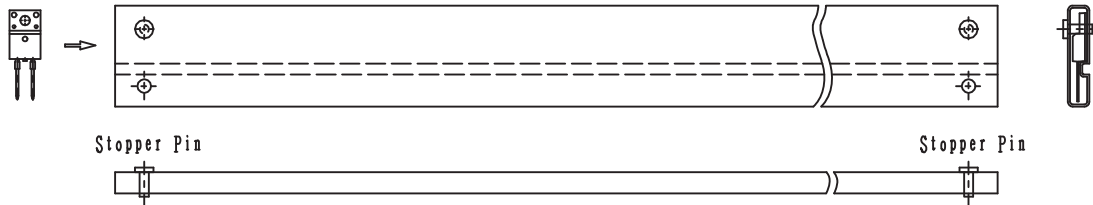
2. Magazine dimensions

(unit:mm)

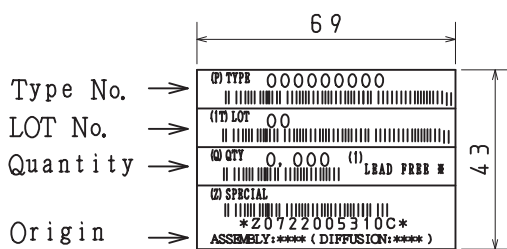


Tolerance=±0.3mm
 Thickness=0.7±0.2mm
 Length =532.5±2mm
 Material =PVC (Antistatic treatment)

3. Storage method to magazine

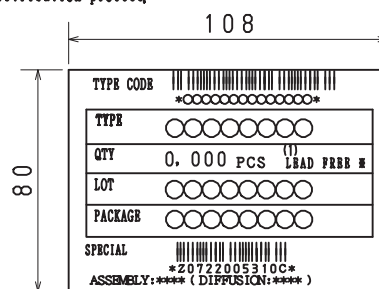


4. Inner box label (unit:mm)



5. Outer box label (unit:mm)

It is a label at the time of factory shipments.
 The form of a label may change in physical distribution process.



NOTE (1)

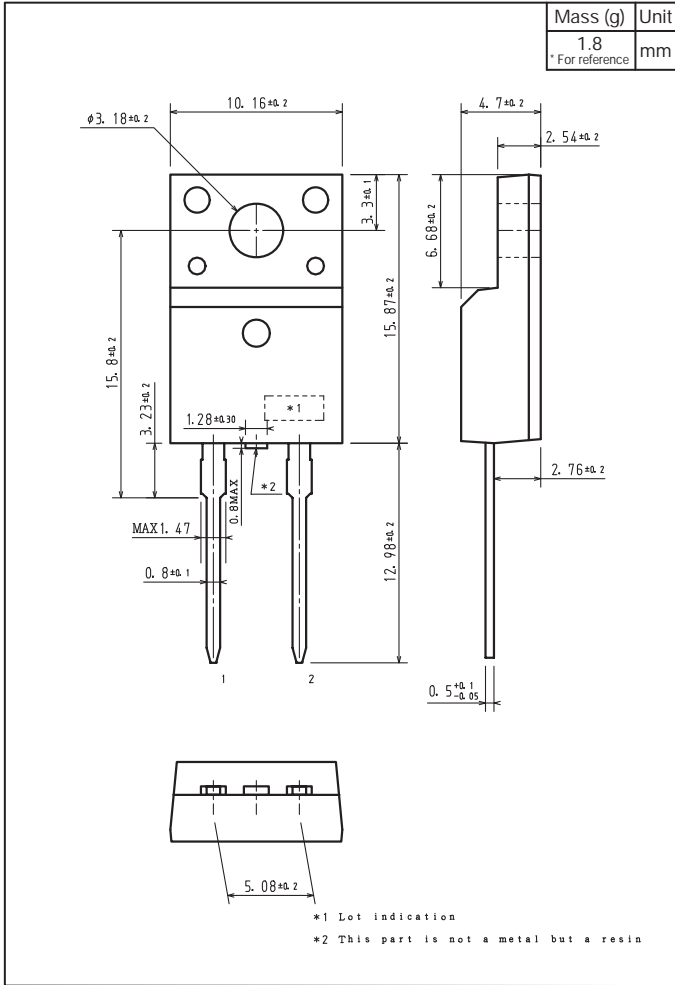
The LEAD FREE # description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

RD2006FR

Outline Drawing

RD2006FR-H



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