



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## RD2006FR — Diffused Junction Silicon Diode Ultrahigh-Speed Switching Diode

### Features

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

### Specifications

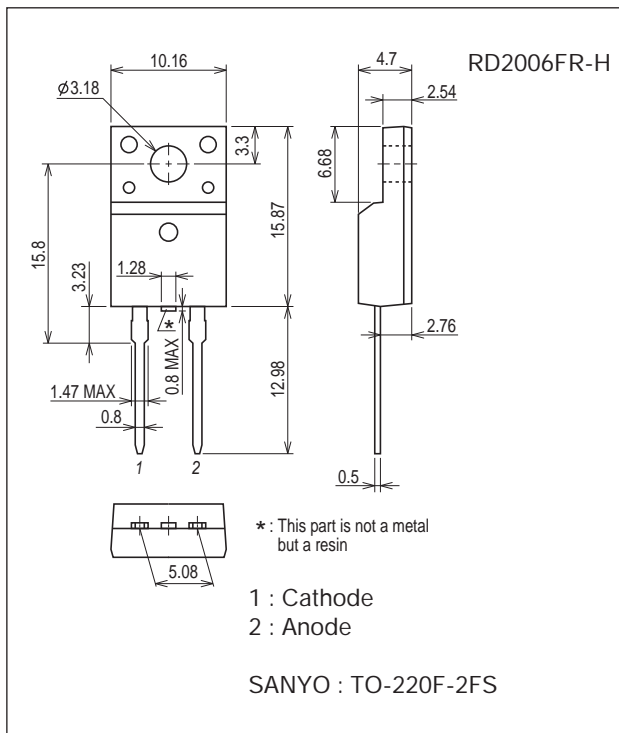
Absolute Maximum Ratings at  $T_a=25^\circ C$

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)

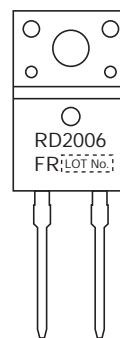
7532-001



### Product & Package Information

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

### Marking



### Electrical Connection



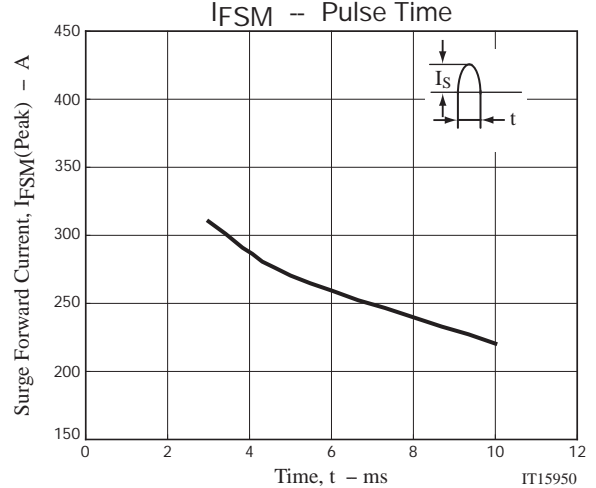
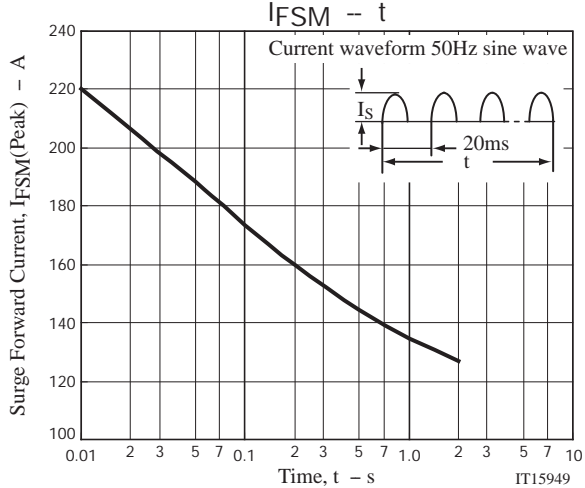
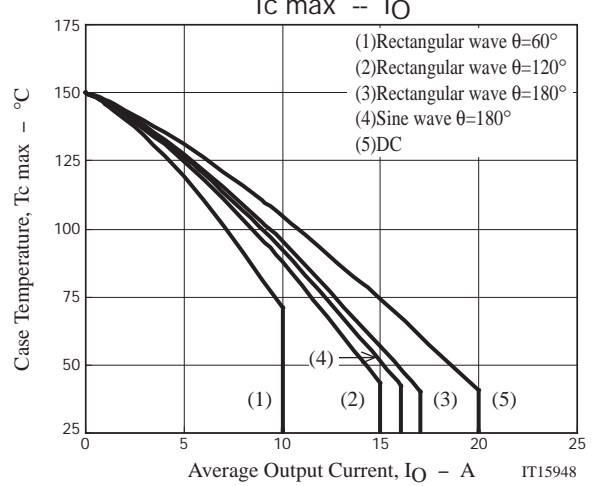
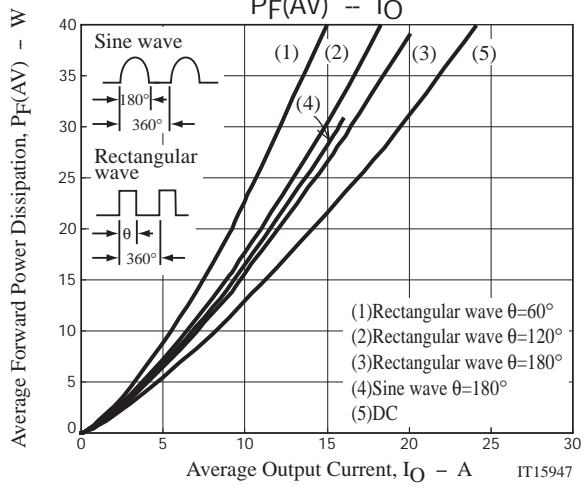
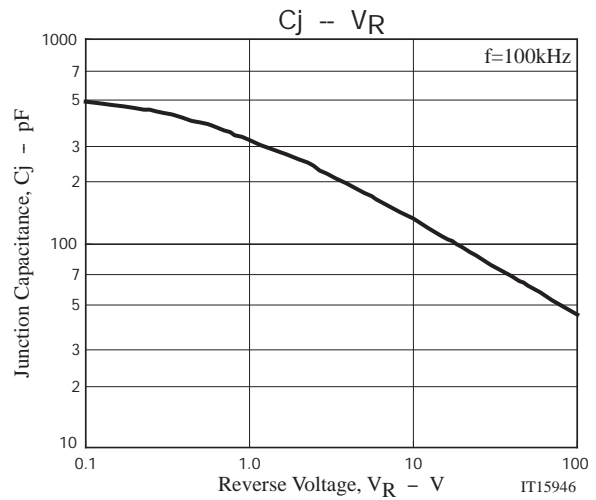
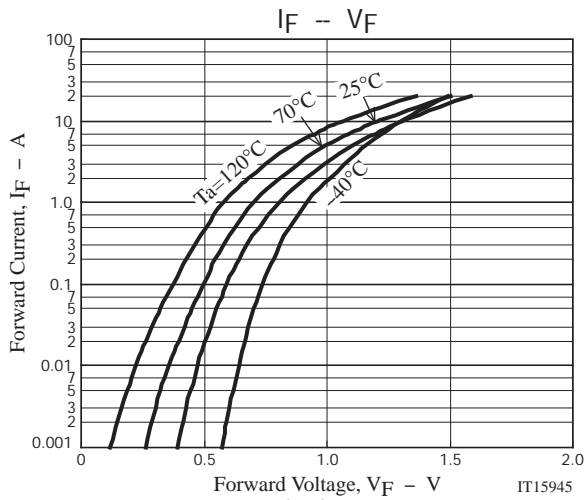
# RD2006FR

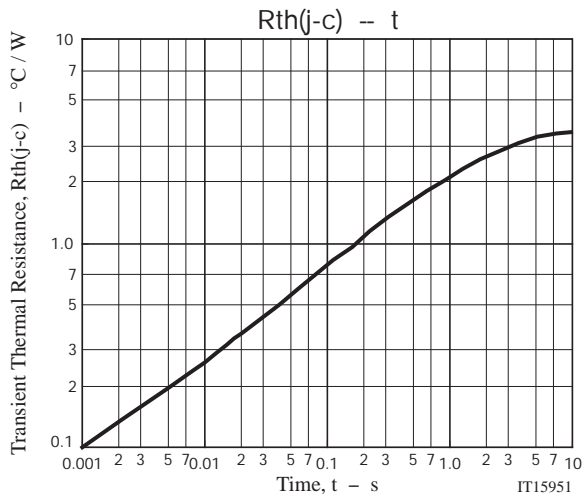
## Electrical Characteristics at Ta=25°C

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	$\mu A$
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

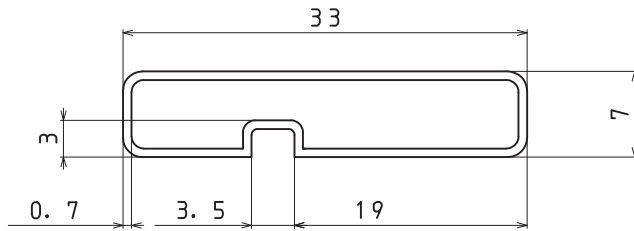
RD2006FR-H

### 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

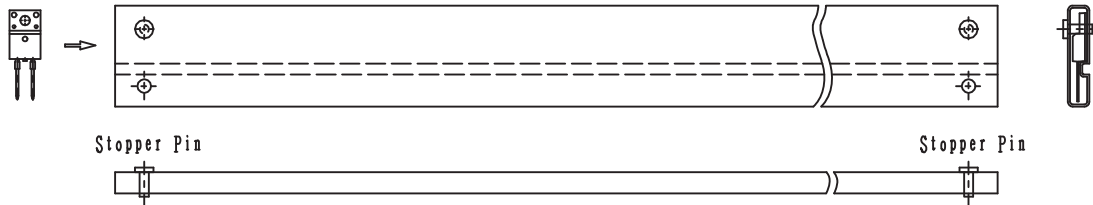
### 2. Magazine dimensions

(unit:mm)

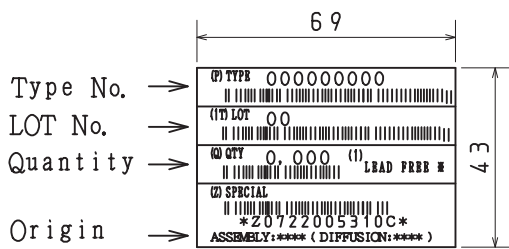


Tolerance=±0.3mm  
 Thickness=0.7±0.2mm  
 Length =532.5±2mm  
 Material =PVC (Antistatic treatment)

### 3. Storage method to magazine

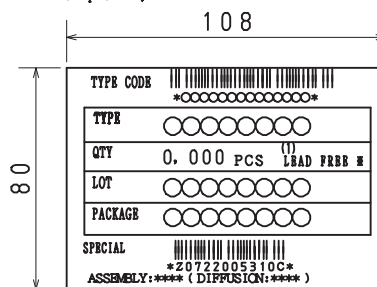


### 4. Inner box label (unit:mm)



### 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



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