



# RD0506LS-SB

## Planar Ultrafast Rectifier 5A, 600V, TO-220F-2FS

ON Semiconductor®

<http://onsemi.com>

### Features

- High breakdown voltage ( $V_{RRM}=600V$ )
- Easy to be mounted, good heat dissipation
- Low noise at the time of reverse recovery
- High reliability
- Reverse recovery time is fast
- 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
Peak Output Current	$I_{OP}$	$PW \leq 100\mu s$ , duty cycle $\leq 50\%$	20	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	$^{\circ}C$

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

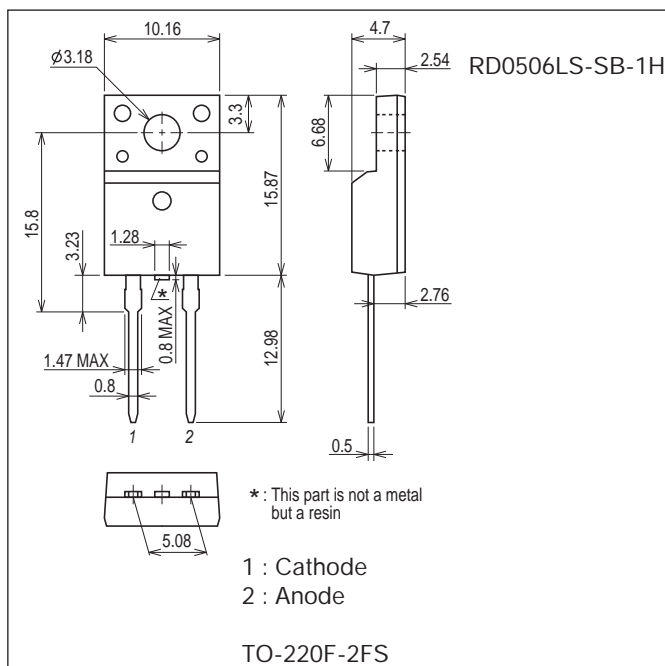
Electrical Characteristics at  $T_a=25^{\circ}C$ 

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	$\mu A$
Reverse Recovery Time	$t_{rr}$	$I_F=5A$ , $di/dt=100A/\mu s$			50	ns
Thermal Resistance	$R_{th(j-c)}$	Between the junction part and the case smoothing current			6.25	$^{\circ}C/W$

### Package Dimensions

unit : mm (typ)

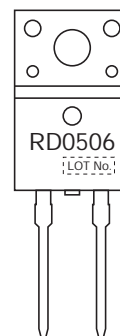
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### Ordering & Package Information

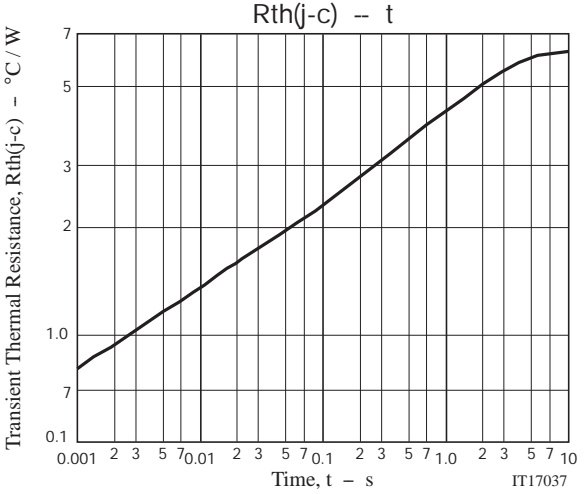
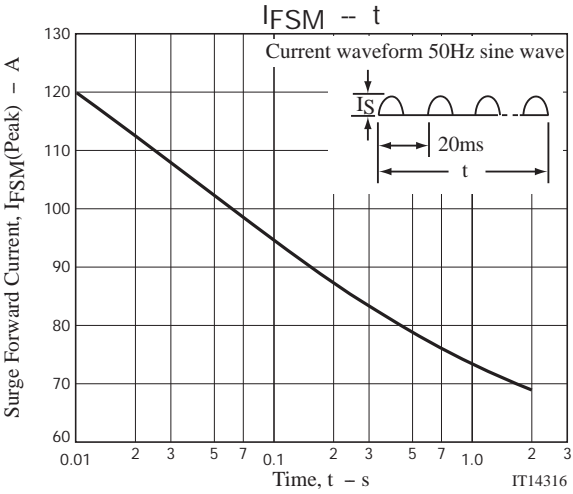
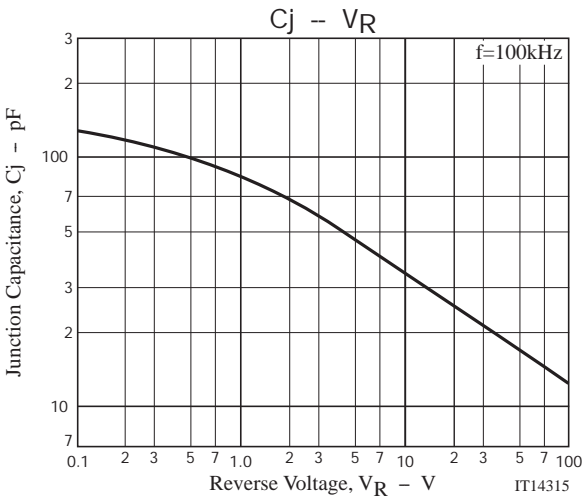
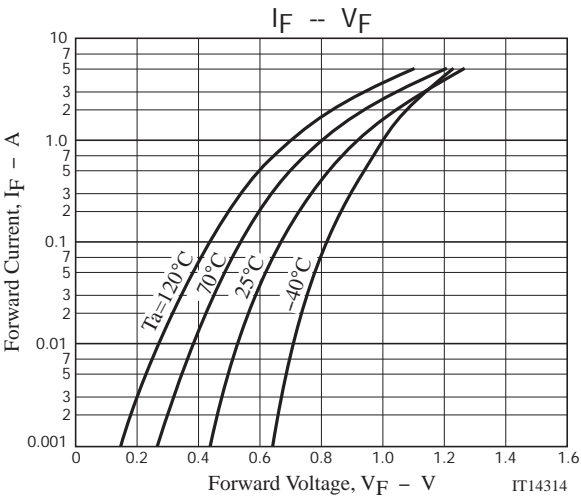
Device	Package	Shipping	memo
RD0506LS-SB-1H	TO-220F-2FS, SC-67 TO-220Full pack, 2-Lead	50pcs./ tube	Pb-Free and Halogen Free

### Marking



### Electrical Connection





## Magazine Specification

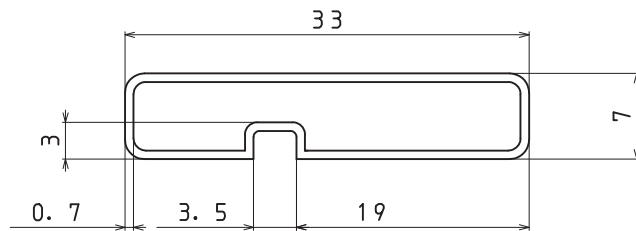
RD0506LS-SB-1H

## 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

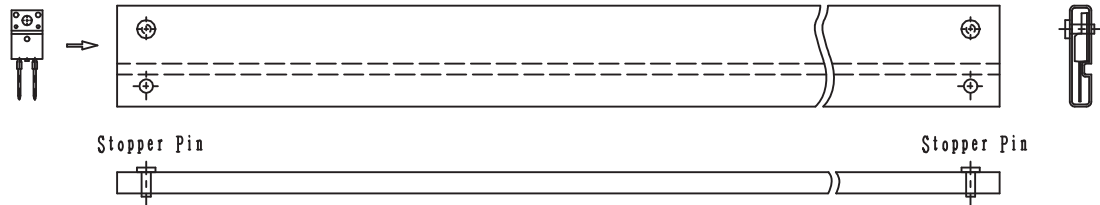
## 2. Magazine dimensions

(unit:mm)



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

## 3. Storage method to magazine



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

Type No. →	(1) TYPE 000000000
LOT No. →	(1) LOT 00
Quantity →	(1) QTY 0,000 (1) LEAD FREE *
Origin →	(2) SPECIAL *Z0722005310C* ASSEMBLY:*** ( DIFFUSION:*** )

## 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.

	TYPE CODE
	*0000000000000000*
	TYPE 00000000
	QTY 0,000 PCS (1) LEAD FREE *
	LOT 00000000
	PACKAGE 00000000
	SPECIAL
	*Z0722005310C*
	ASSEMBLY:*** ( DIFFUSION:*** )

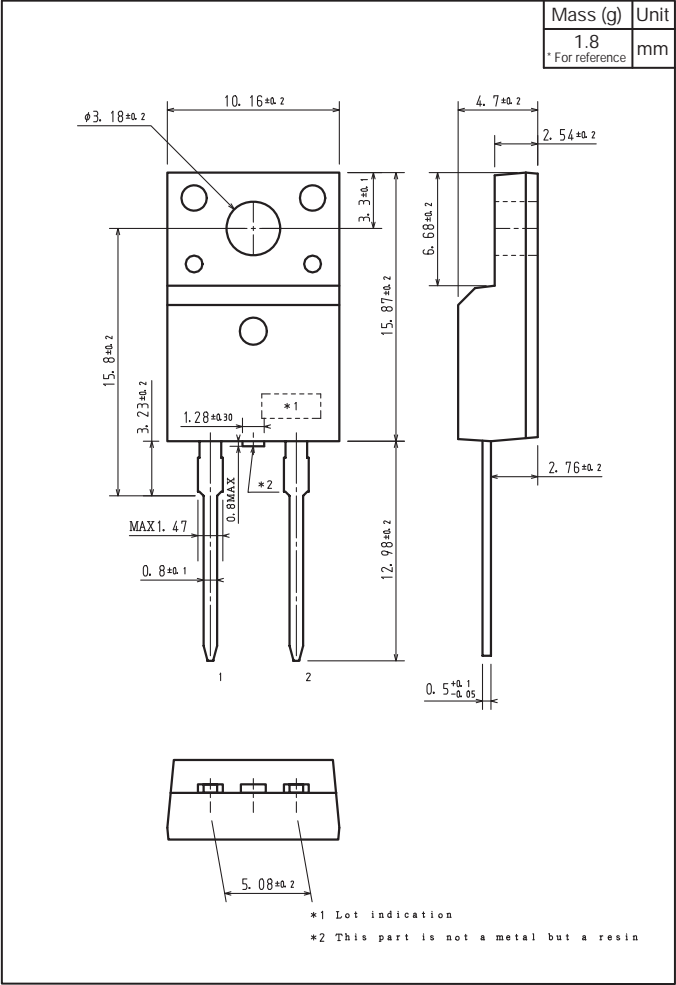
## NOTE (1)

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

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

Outline Drawing

RD0506LS-SB-1H



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