Ordering number : ENA1390A

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 Ta=25°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≤100μs, duty cycle≤50%	20	A
Surge Forward Current	I_{FSM}	Sine wave, 10ms 1pulse	120	A
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°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.

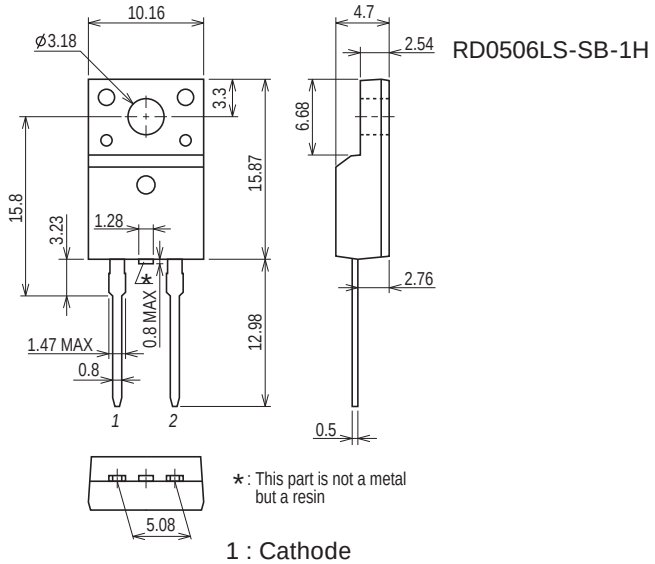
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=1mA	600			V
Forward Voltage	V_F	I_F=5A		1.3	1.6	V
Reverse Current	I_R	V_R=600V			50	μA
Reverse Recovery Time	t_{rr}	I_F=5A, di / dt=100A/μs			50	ns
Thermal Resistance	Rth(j-c)	Between the junction part and the case smoothing current			6.25	°C / W

Package Dimensions

unit : mm (typ)

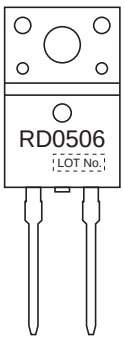
7532-001



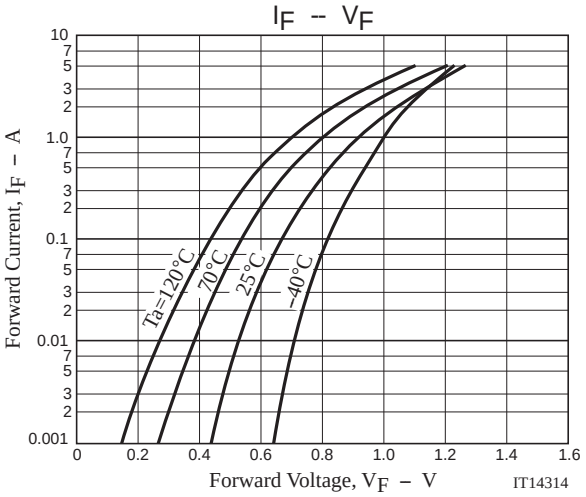
Ordering & Package Information

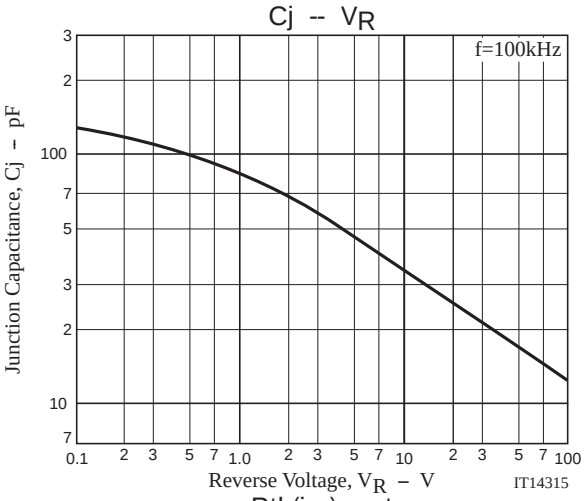
Device	Package	Shipping	memo
RD0506LS-SB-1H	TO-220F-2FS, SC-67 TO-220Full pack, 2-Lead	50pcs./ tube	Pb-Free and Halogen Free

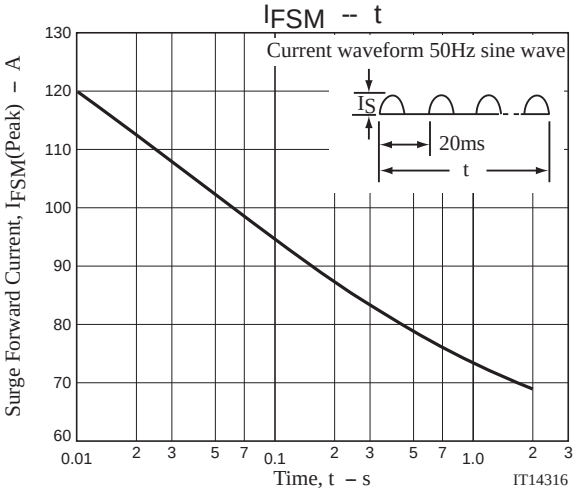
Marking

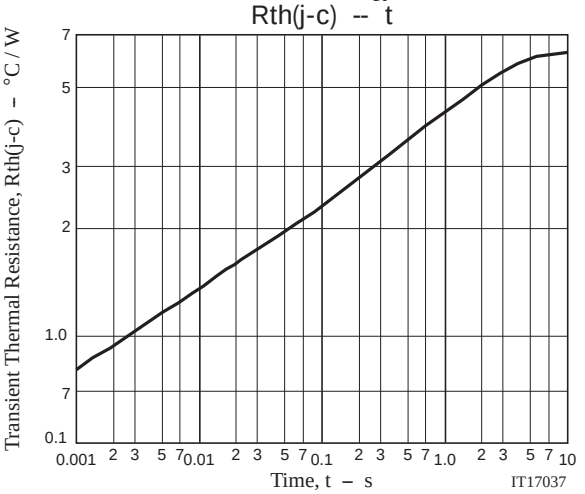


Electrical Connection


IF -- VF
Forward Current, IF – A
Forward Voltage, VF – V
Ta=120°C
70°C
25°C
–40°C
IT14314


Cj -- VR
f=100kHz
Junction Capacitance, Cj – pF
Reverse Voltage, VR – V
IT14315


IFSM -- t
Current waveform 50Hz sine wave
IS
20ms
t
Surge Forward Current, IFSM(Peak) – A
Time, t – s
IT14316


Rth(j-c) -- t
Transient Thermal Resistance, Rth(j-c) – °C / W
Time, t – s
IT17037

Magazine Specification

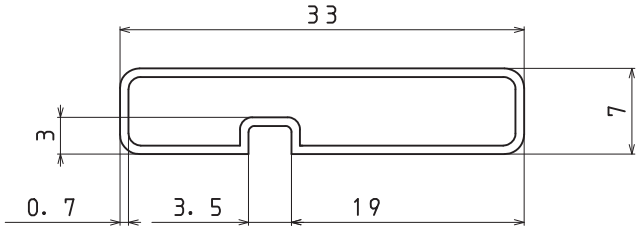
RD0506LS-SB-1H

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

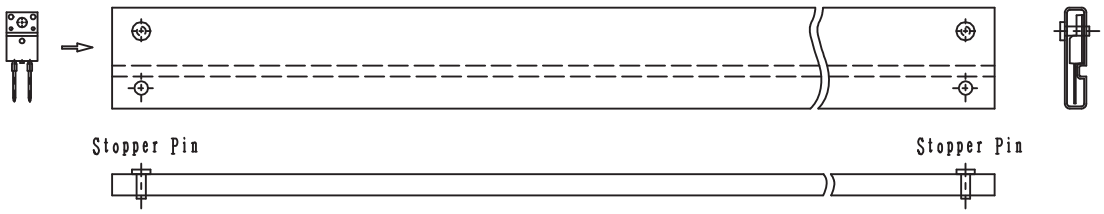
2. Magazine dimensions

(unit:mm)

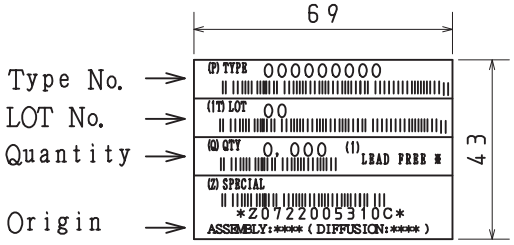


Tolerance=±0.3mm
Thickness=0.7±0.2mm
Length =532.5±2mm
Material =PVC (Antistatic treatment)

3. Storage method to magazine

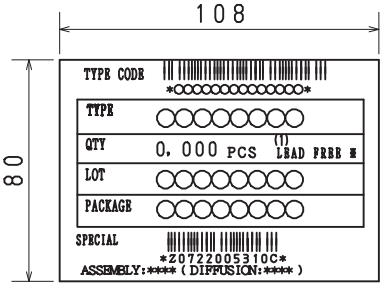


4. Inner box label (unit:mm)



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.



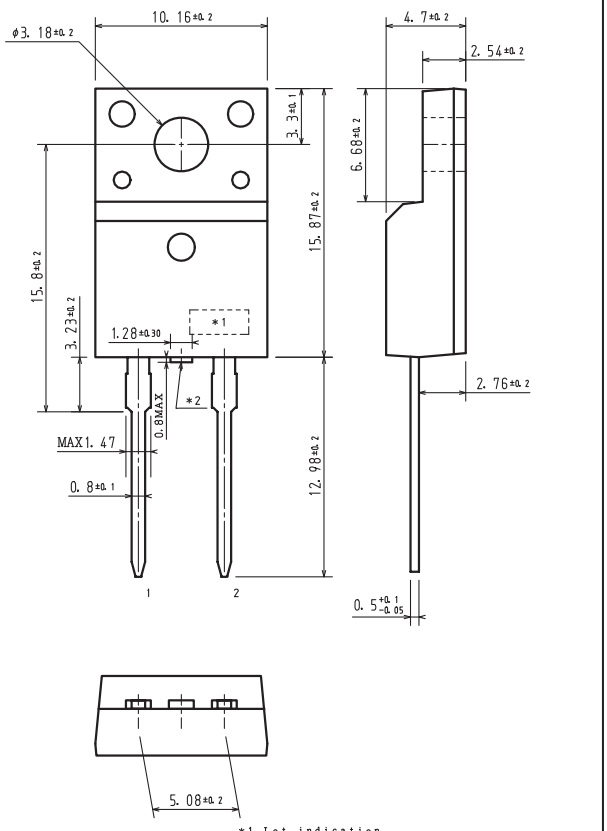
NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

Outline Drawing

RD0506LS-SB-1H

Mass (g)	Unit
1.8 * For reference	mm



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- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
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- *Входной контроль качества.*
- *Наличие сертификата ISO.*

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