



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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UD1006FR

Planar Ultrafast Rectifier Low VF type, 10A, 600V, 1.3V, TO-220F-2FS

ON Semiconductor®

<http://onsemi.com>

Features

- VRRM=600V
- VF=1.3V max (IF=10A)
- t_{rr}=60ns(typ) (IF=0.5A, IR=1A)
- Halogen free compliance

Specifications

Absolute Maximum Ratings at Ta=25°C

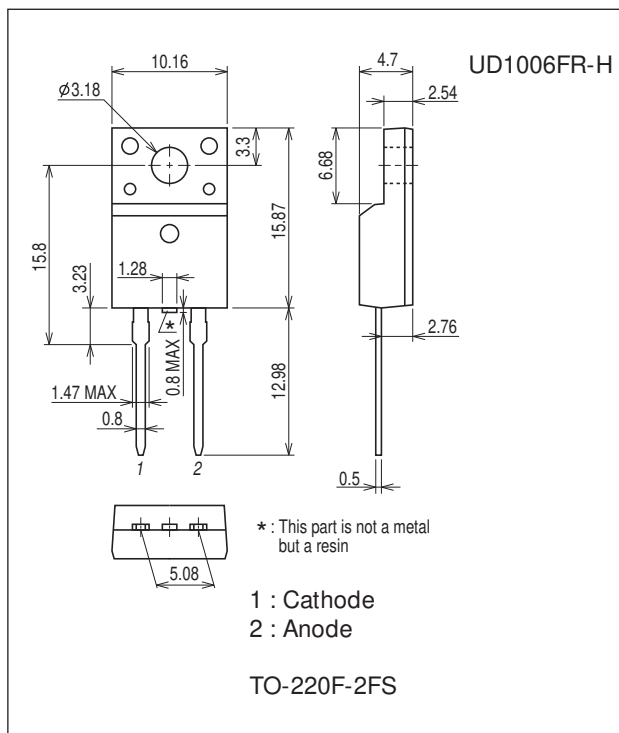
| Parameter | Symbol | Conditions | Ratings | Unit |
|--|---------------------|--|-------------|------|
| Repetitive Peak Reverse Voltage | VRRM | | 600 | V |
| Nonrepetitive Peak Reverse Surge Voltage | VRSM | | 600 | V |
| Average Output Current | I _O | 50Hz resistive load, Sine wave Tc=79°C | 10 | A |
| R.M.S Forward Current | I _{F(RMS)} | Tc=25°C (SANYO's ideal heat dissipation condition) Package limited | 18 | A |
| Surge Forward Current | I _{FSM} | Sine wave 10ms 1pulse | 120 | A |
| Junction Temperature | T _j | | 150 | °C |
| Storage Temperature | T _{stg} | | -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.

Package Dimensions

unit : mm (typ)

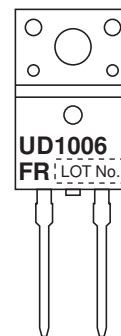
7532-001



Product & Package Information

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

Marking



Electrical Connection



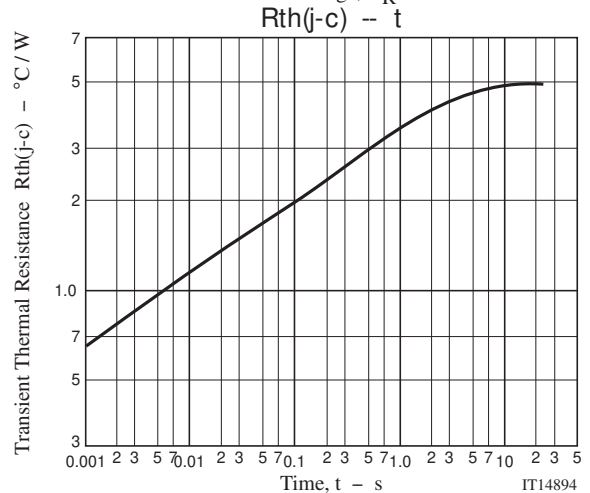
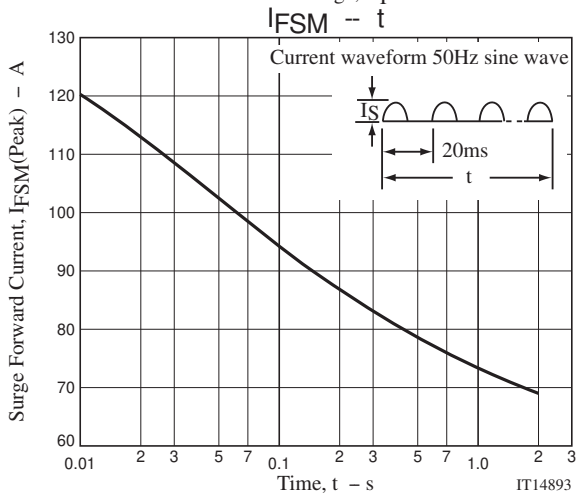
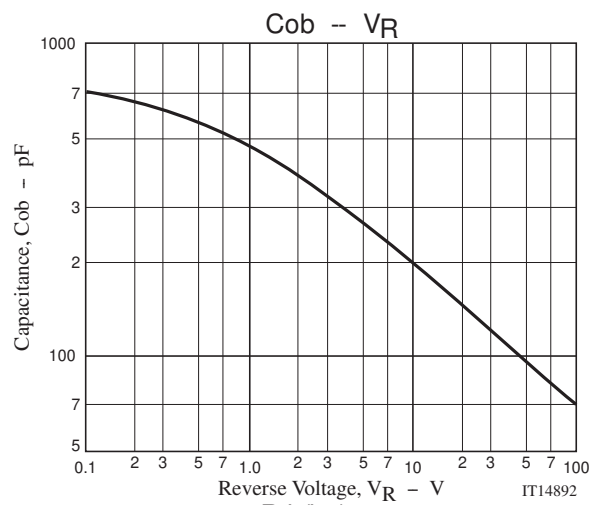
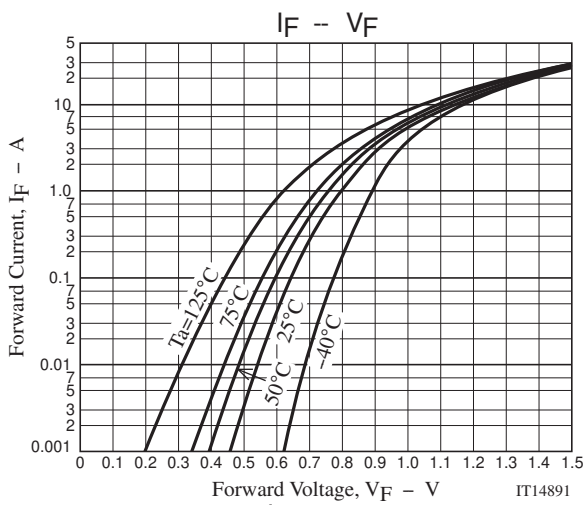
UD1006FR

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 | $I_F=10A$ | | 1.1 | 1.3 | V |
| Reverse Current | I_R | $V_R=600V$ | | | 100 | μA |
| Reverse Recovery Time | t_{rr1} | $I_F=10A, di/dt=100A/\mu s$ | | 100 | 150 | ns |
| | t_{rr2} | $I_F=0.5A, I_R=1A$ | | 60 | | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Junction - Case : Smoothed DC | | | 4.9 | $^{\circ}C/W$ |

Ordering Information

| Device | Package | Shipping | memo |
|------------|-------------|-----------------|--------------------------|
| UD1006FR-H | TO-220F-2FS | 50pcs./magazine | Pb Free and Halogen Free |



UD1006FR

Magazine Specification

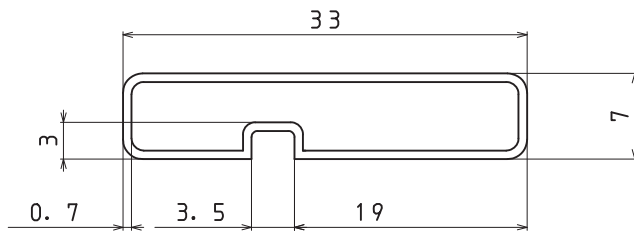
UD1006FR-H

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 |

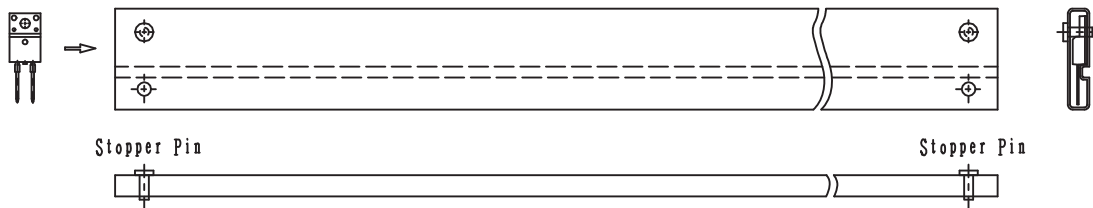
2. Magazine dimensions

(unit:mm)

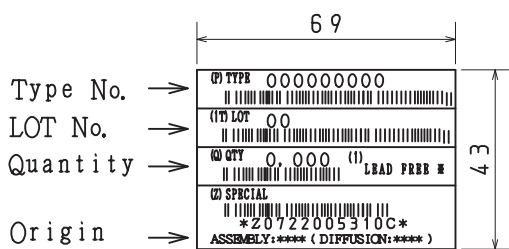


Tolerance=±0.3mm
 Thickness=0.7±0.2mm
 Length =532.5±2mm
 Material =PVC (Antistatic treatment)

3. Storage method to magazine

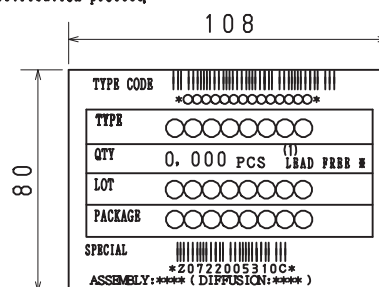


4. Inner box label (unit:mm)



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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