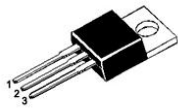
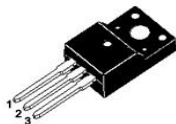


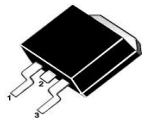
## SCHOTTKY BARRIER RECTIFIER



TO-220AB/CT



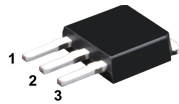
TO-220F/FCT



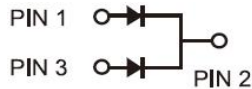
TO-263/DC



TO-252/CS



TO-251/D



### FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection



### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

### Primary Characteristic

|               |       |
|---------------|-------|
| $I_O$         | 2*10A |
| $V_{RRM}$     | 150V  |
| $I_{FSM}$     | 290A  |
| $V_F$         | 0.72V |
| $T_{j,max}$   | 150°C |
| Assembly code | AD    |

### MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

### Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

| Characteristics                                                                                   | Symbol          | Value         | Unit |
|---------------------------------------------------------------------------------------------------|-----------------|---------------|------|
| Maximum Repetitive Peak Reverse Voltage                                                           | $V_{RRM}$       | 150           | V    |
| Working Peak Reverse Voltage                                                                      | $V_{RWM}$       | 150           | V    |
| Maximum DC Blocking Voltage                                                                       | $V_{DC}$        | 150           | V    |
| Maximum Average Forward Rectified Current                                                         | $I_O$           | Per Leg<br>10 | A    |
|                                                                                                   |                 | Total<br>20   |      |
| Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$       | 290           | A    |
| Operating Temperature Range                                                                       | $T_J$           | 150           | °C   |
| Storage Temperature Range                                                                         | $T_{STG}$       | -40 to +150   | °C   |
| Typical Thermal Resistance (Note1)<br>TO-220AB,TO-263,TO-252<br>TO-220F                           | $R_{\theta JC}$ | 2             | °C/W |
|                                                                                                   |                 | 4             |      |

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics (Per Leg) unless otherwise specified

| Characteristics                                 |          | Symbol         | Value |      | Unit |
|-------------------------------------------------|----------|----------------|-------|------|------|
| Forward Voltage Drop(Note2)                     |          | V <sub>F</sub> | Typ.  | Max. | V    |
| at I <sub>F</sub> =3A                           | TA=25°C  |                | 0.73  | -    |      |
|                                                 | TA=125°C |                | 0.60  | -    |      |
| at I <sub>F</sub> =5A                           | TA=25°C  |                | 0.77  | -    |      |
|                                                 | TA=125°C |                | 0.64  | -    |      |
| at I <sub>F</sub> =10A                          | TA=25°C  |                | 0.84  | 0.90 |      |
|                                                 | TA=125°C |                | 0.72  | -    |      |
| Maximum Reverse Current at V <sub>R</sub> =150V | TA=25°C  | I <sub>R</sub> | 1     | 10   | μA   |
|                                                 | TA=125°C |                | 1     | -    | mA   |

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

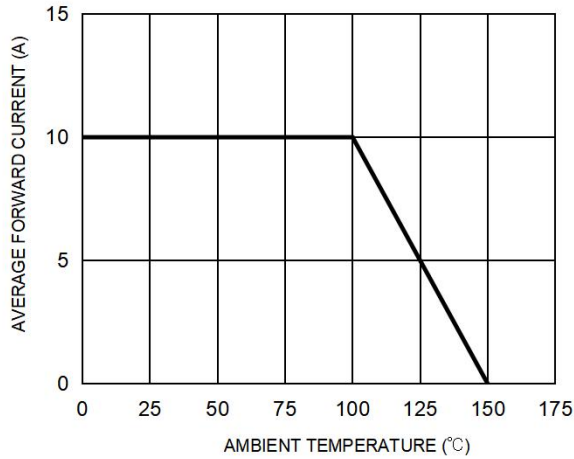


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

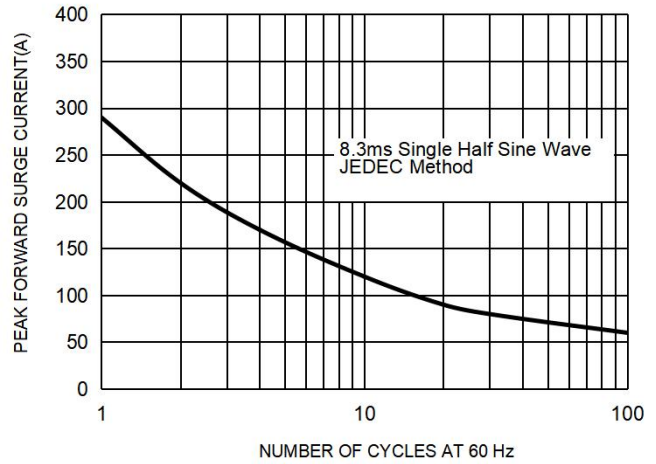


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

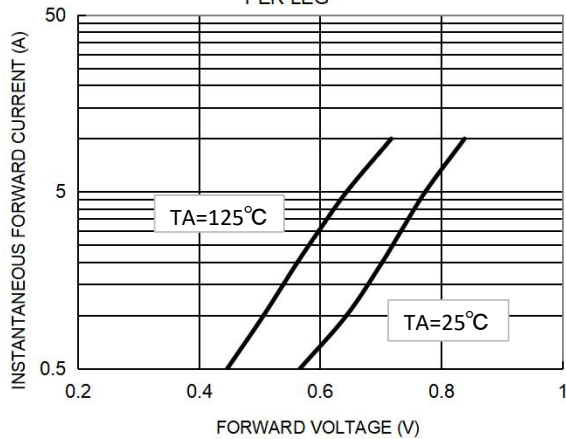
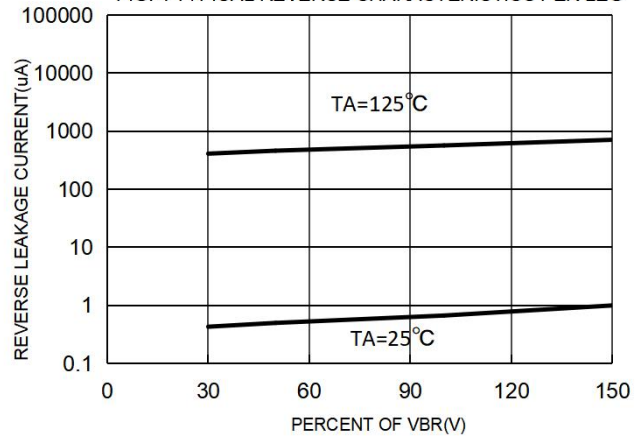
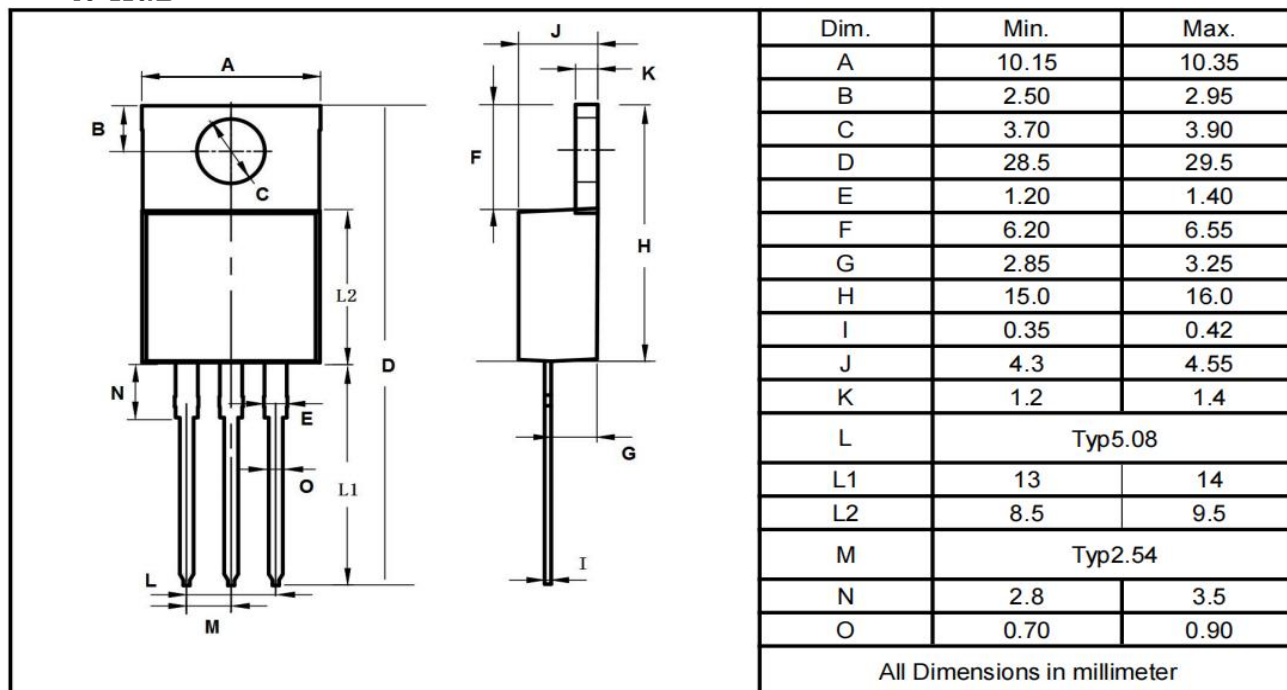


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

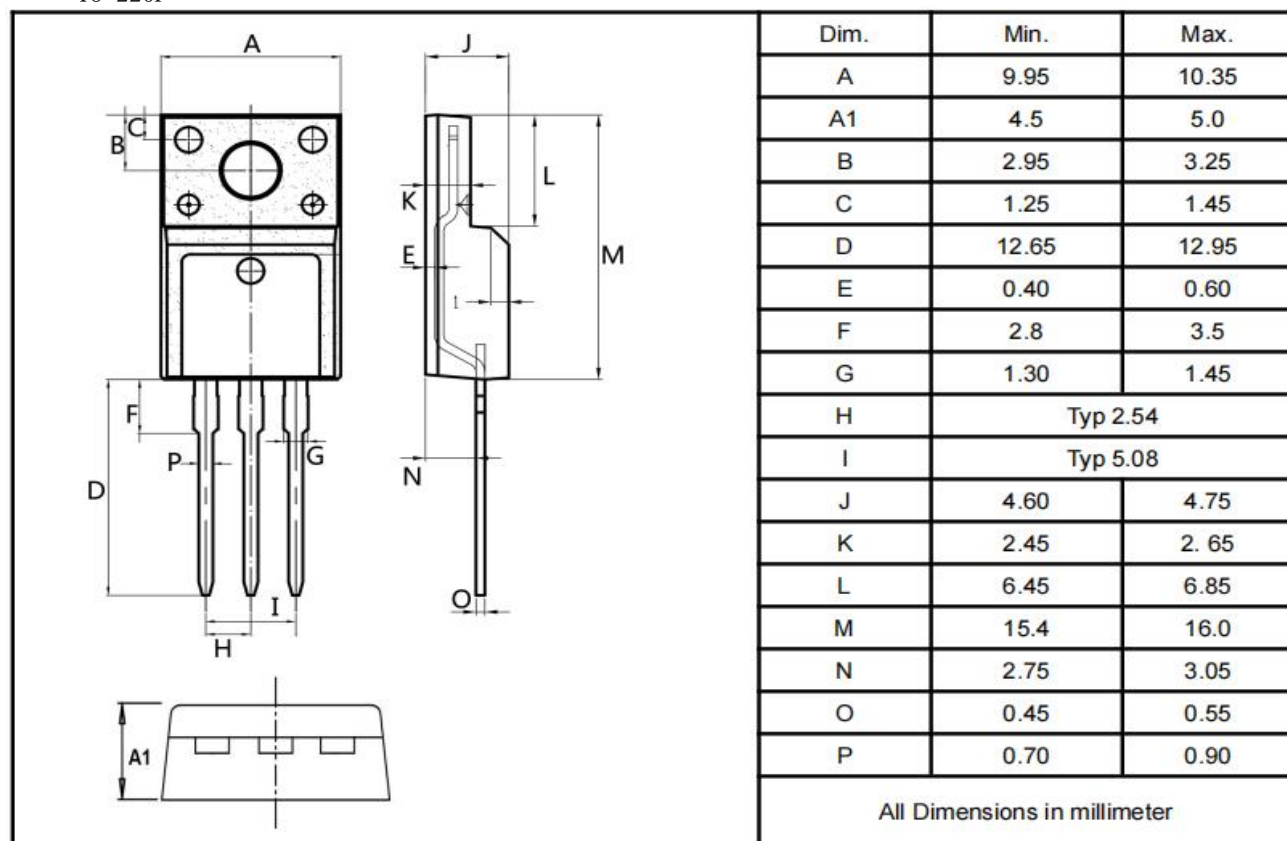


Package Outline Dimensions millimeters

TO-220AB

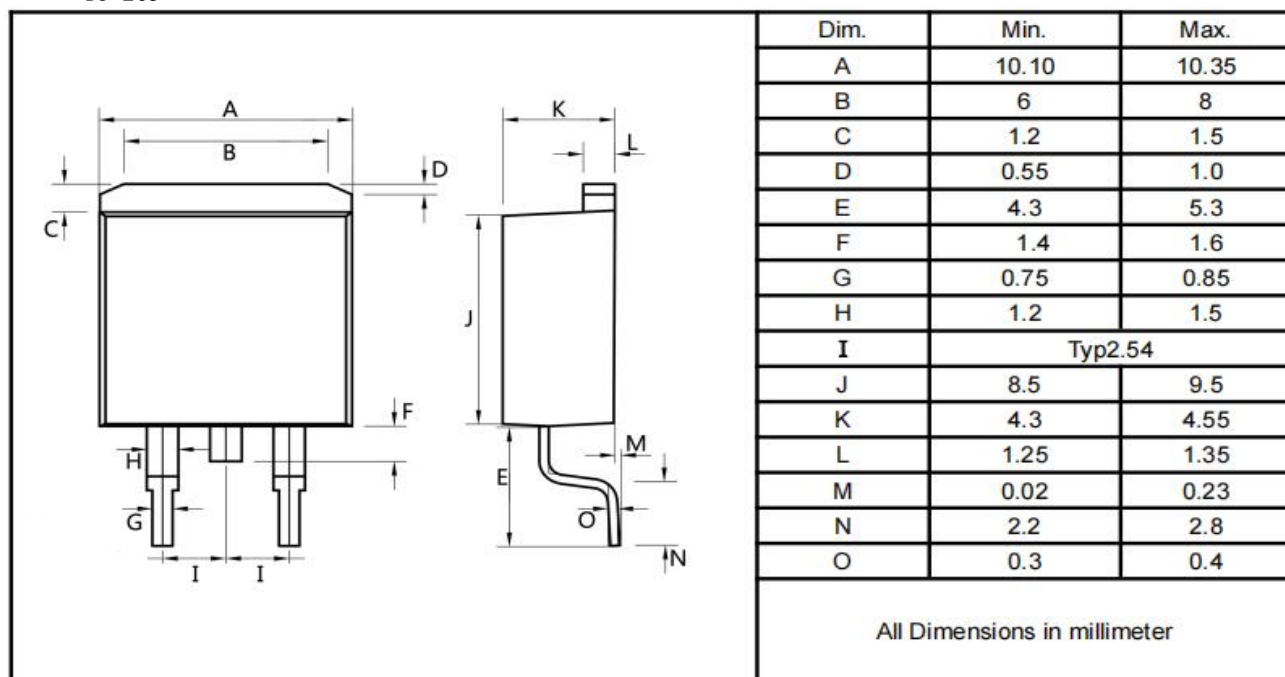


TO-220F

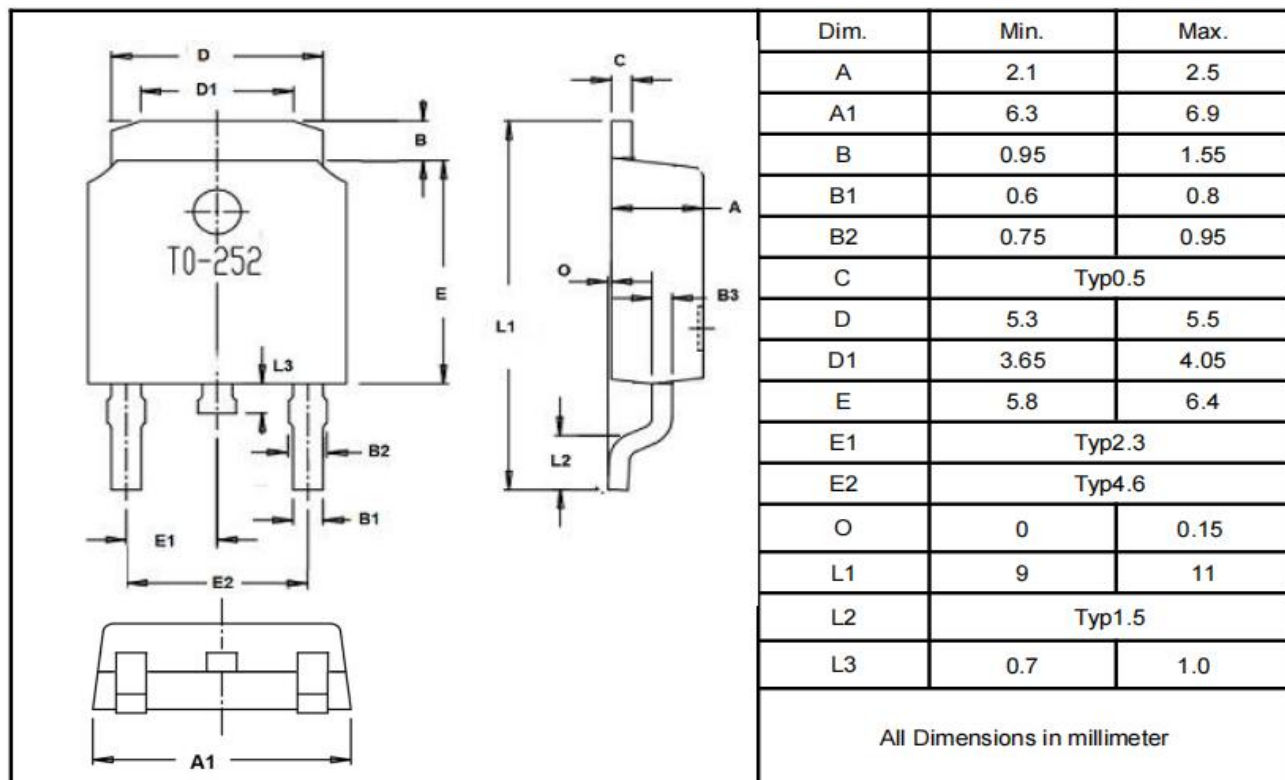


Package Outline Dimensions millimeters

T0-263

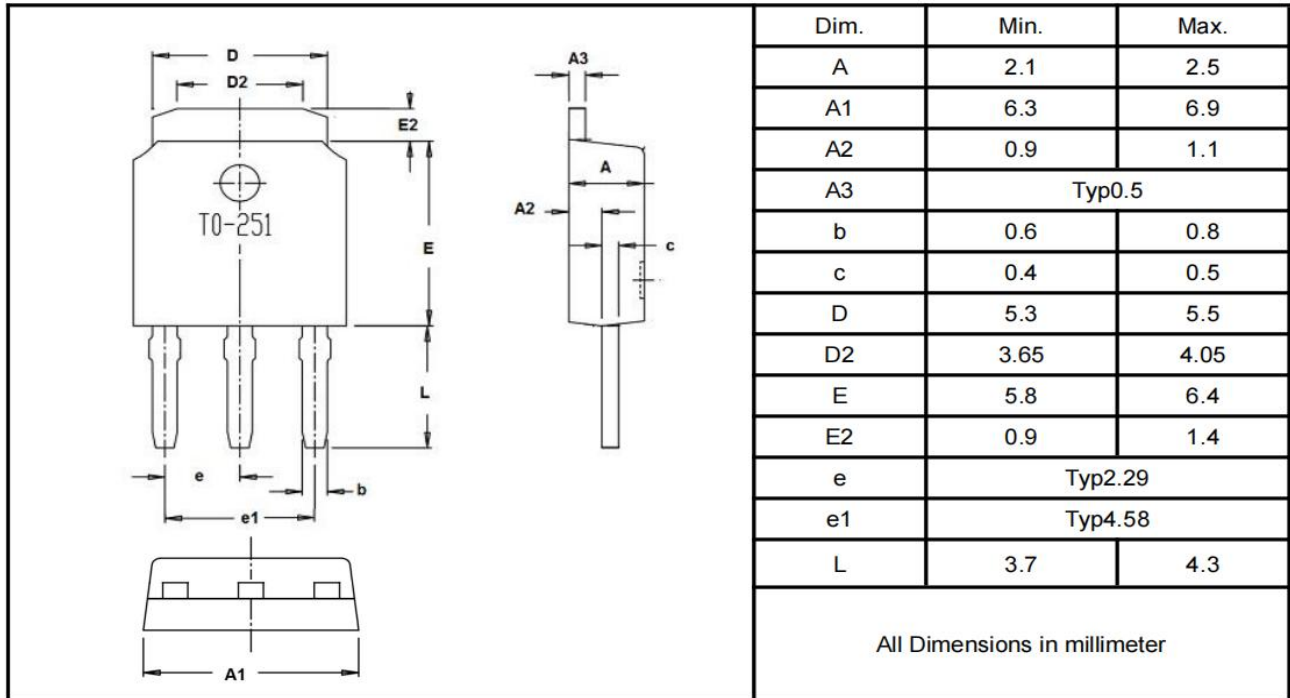


T0-252



Package Outline Dimensions millimeters

T0-251



Marking on the body

