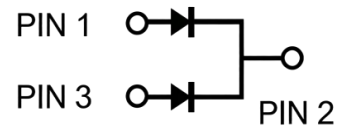


## Ultrafast Recovery Rectifiers

| Parameter   | Value   | Unit |
|-------------|---------|------|
| $V_{RRM}$   | 600     | V    |
| $I_{F(AV)}$ | 10(2*5) | A    |

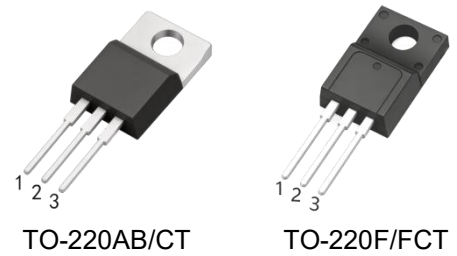


### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

### Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.



### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ , unless otherwise noted)

| Parameter  |         | Symbol          | Value       | Unit               |
|--|---------|-----------------|-------------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  |         | $V_{RRM}$       | 600         | V                  |
| Working Peak Reverse Voltage   |         | $V_{RWM}$       | 600         | V                  |
| Maximum DC Blocking Voltage  |         | $V_{DC}$        | 600         | V                  |
| Maximum Average Forward Rectified Current  | Per Leg | $I_{F(AV)}$     | 5           | A                  |
|  | Total   |                 | 10          |                    |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) |         | $I_{FSM}$       | 90          | A                  |
| Operating Temperature Range  |         | $T_J$           | 150         | $^\circ\text{C}$   |
| Storage Temperature Range  |         | $T_{STG}$       | -40 to +150 | $^\circ\text{C}$   |
| Typical Thermal Resistance (Note1)   |         | $R_{\theta JC}$ | 2           | $^\circ\text{C/W}$ |
| TO-220AB, TO-263   |         |                 |             |                    |
| TO-220F  |         |                 |             |                    |

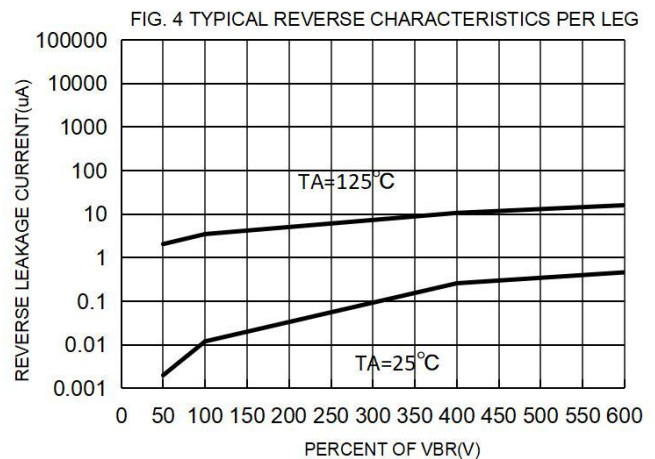
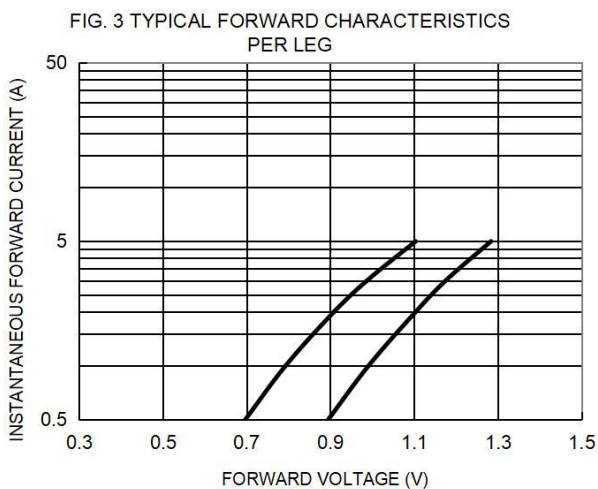
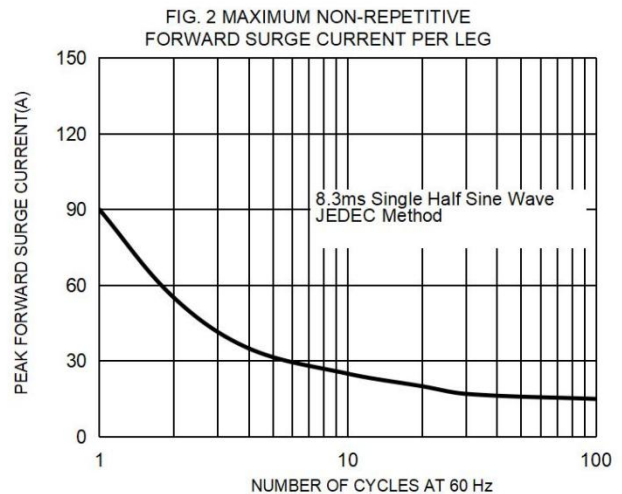
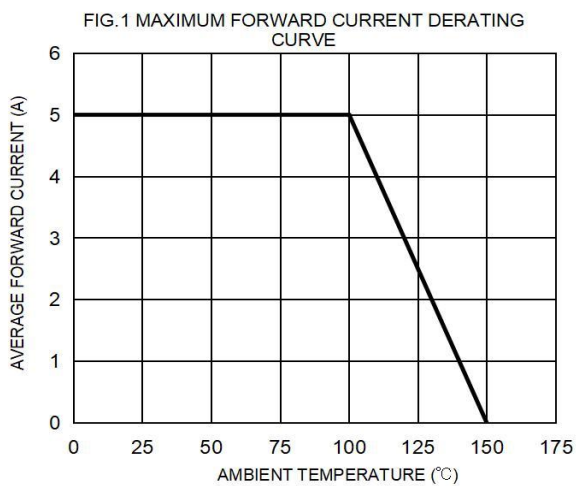
Note1: Thermal resistance from Junction to case per leg mounted on heat sink.

## Electrical Characteristics(Per Leg) unless otherwise specified

| Parameter   |                   | Symbol   | Value |      | Unit    |
|---|-------------------|----------|-------|------|---------|
| Forward Voltage Drop(Note2)                         |                   | $V_F$    | Typ.  | Max. | V       |
| at $I_F=5A$   | $T_A=25^\circ C$  |          | 1.28  | 1.59 |         |
|   | $T_A=125^\circ C$ |          | 1.10  | -    |         |
| Maximum Reverse Current<br>at $V_R=600V$            | $T_A=25^\circ C$  | $I_R$    | 0.5   | 1    | $\mu A$ |
|   | $T_A=125^\circ C$ |          | 15    | -    | $\mu A$ |
| Maximum Reverse Recovery Time at $I_F=0.5A, I_R=1A$ |                   | $T_{rr}$ | -     | 35   | ns      |

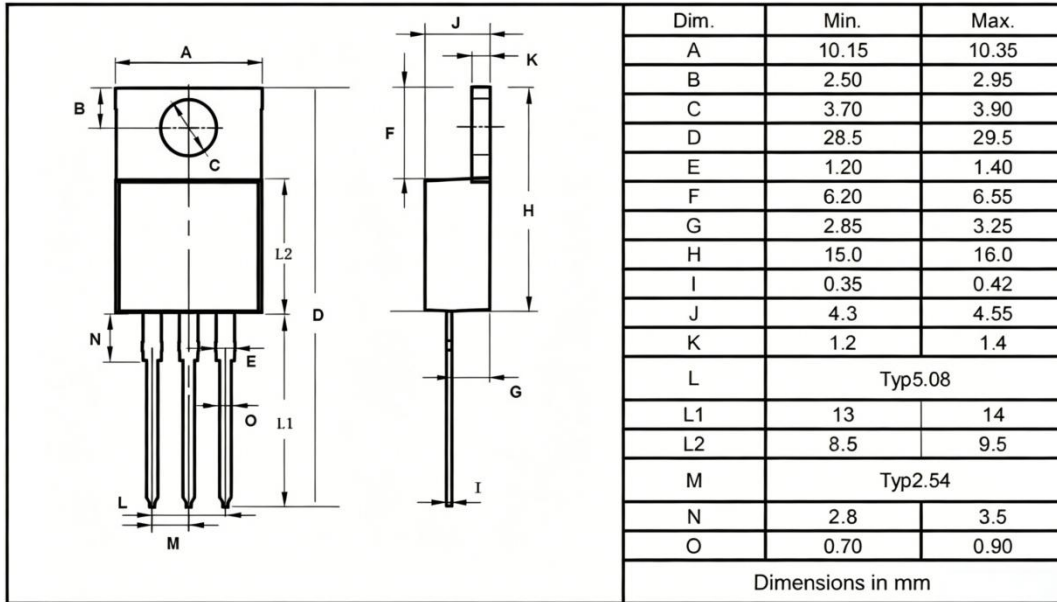
Note2:Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

## Typical Characteristics

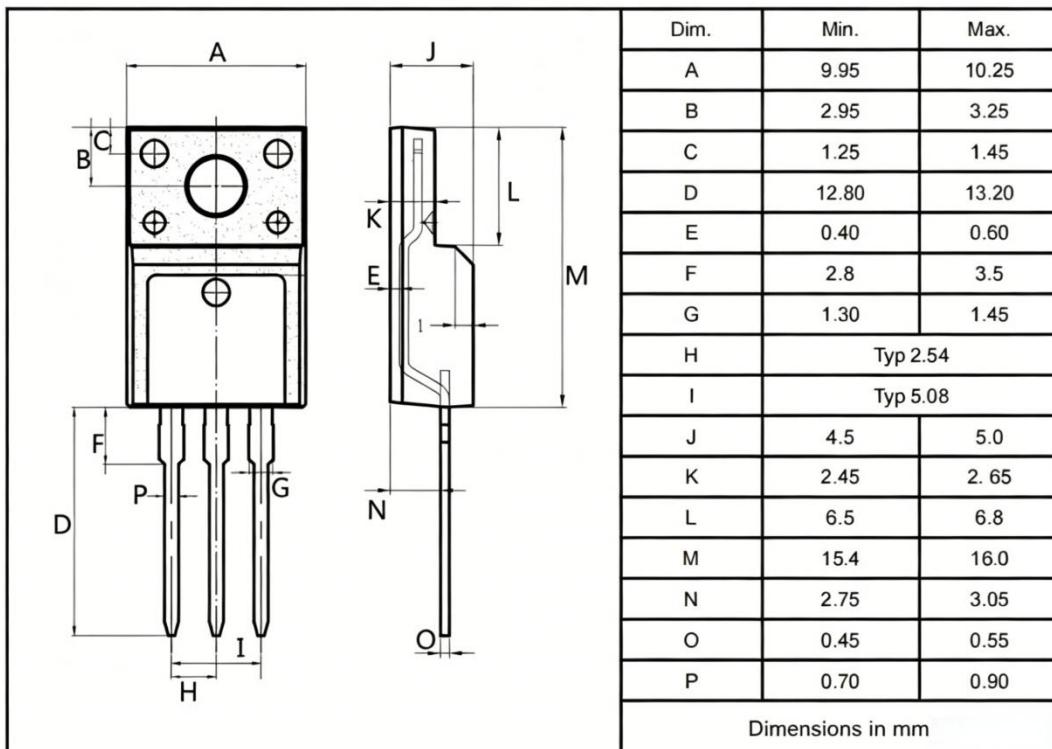


**Package Outlines**

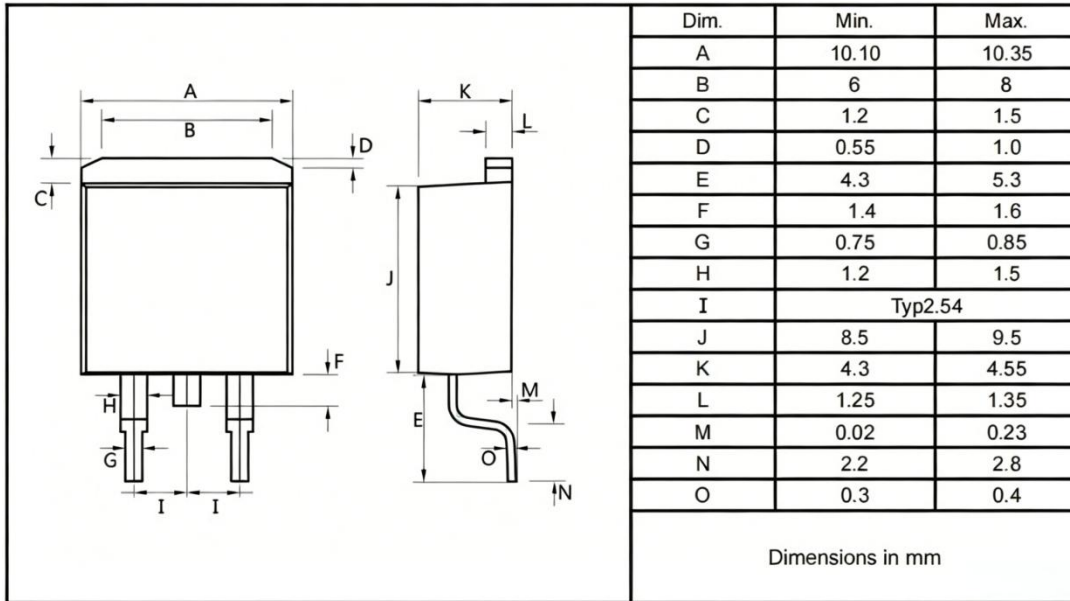
**TO-220AB**



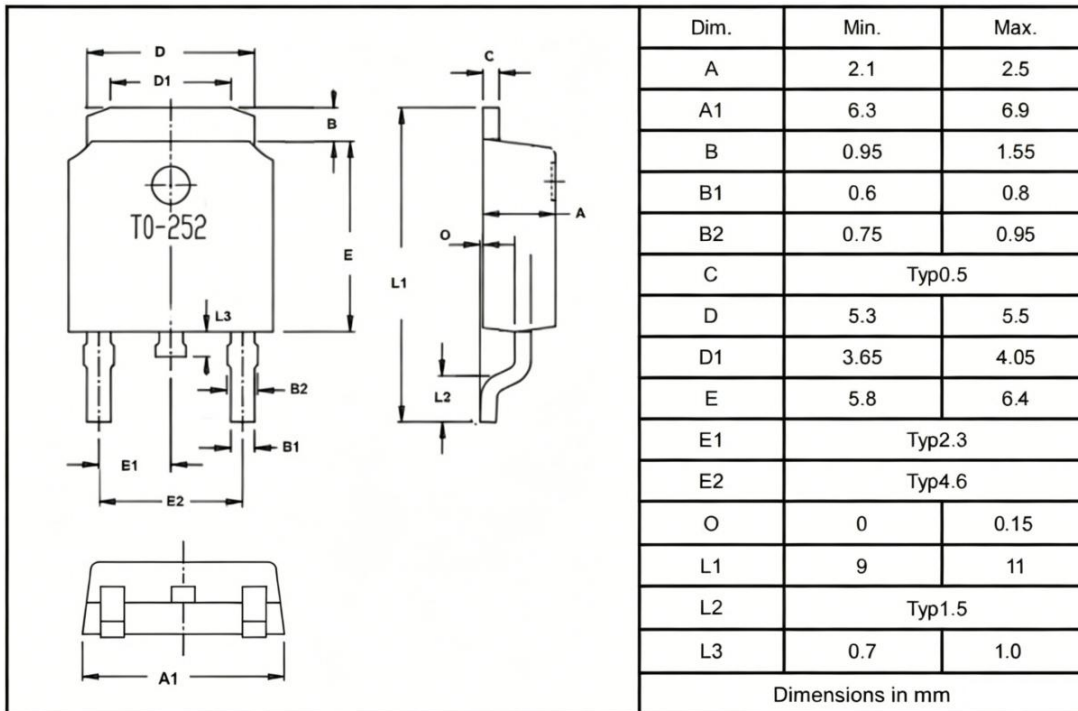
**TO-220F**



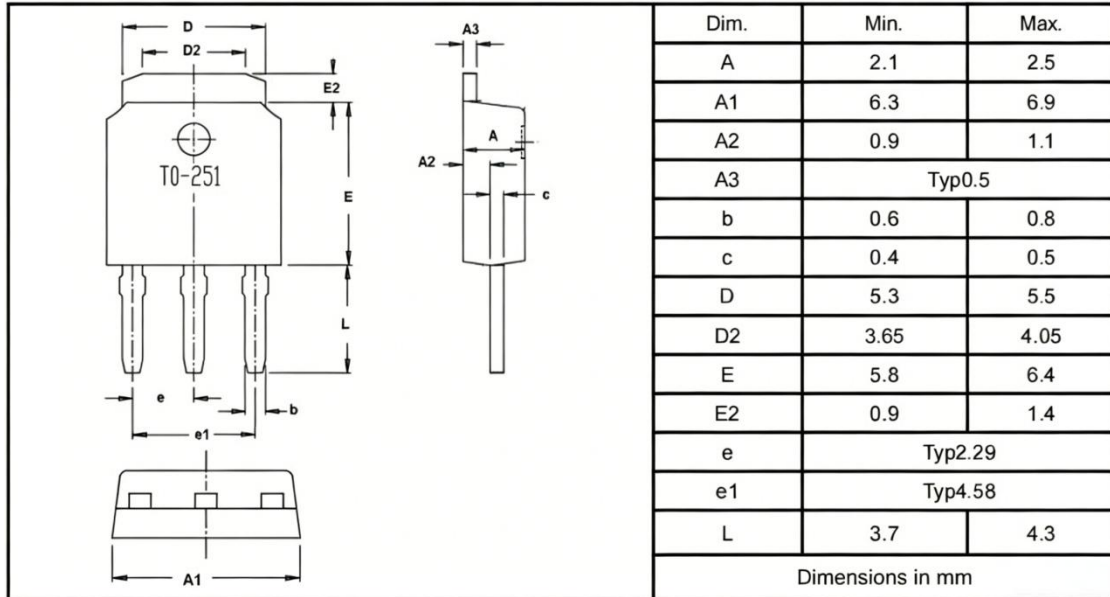
**TO-263**



**TO-252**



**TO-251**



**\*Important Usage Information and Disclaimer**

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