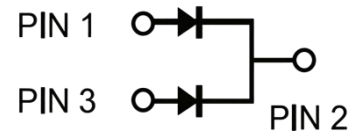


### Schottky Barrier Rectifiers

| Parameter   | Value    | Unit |
|-------------|----------|------|
| $V_{RRM}$   | 100      | V    |
| $I_{F(AV)}$ | 20(2*10) | A    |

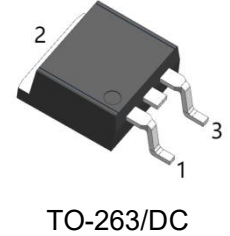
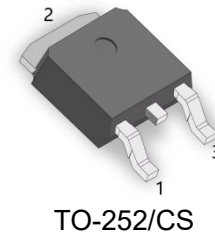
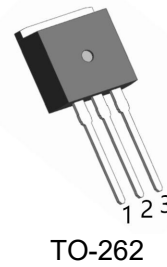


#### Features

- Common cathode structure
- Low power consumption, high efficiency
- Good high-temperature characteristics
- Over voltage protection loop, high reliability

#### Applications

- Power Factor Correction(PFC)
- Switched Mode Power Pully(SMPS)
- Uninterruptible Power Supply(UPS)
- Air Conditioner



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

| Parameter  | Symbol          | Value          | Unit             |
|--|-----------------|----------------|------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 100            | V                |
| Working Peak Reverse Voltage   | $V_{RWM}$       | 100            | V                |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 100            | V                |
| Maximum Average Forward Rectified Current  | $I_{F(AV)}$     | Per Leg        | 10               |
|  |                 | Total          | 20               |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$       | 180            | A                |
| Maximum Junction Temperature   | $T_J$           | 175            | $^\circ\text{C}$ |
| Storage Temperature Range  | $T_{STG}$       | -40 to +150    | $^\circ\text{C}$ |
| Typical Thermal Resistance   | $R_{\theta JC}$ | TO-262, TO-263 | 2.0              |
|  |                 | TO-220F        | 3.5              |
|  |                 | TO-252         | 2.5              |

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

### Electrical Characteristics unless otherwise specified

| Parameter            |                   | Symbol | Value |      | Unit    |
|----------------------|-------------------|--------|-------|------|---------|
| Forward Voltage Drop |                   |        | Typ.  | Max. |         |
| $I_F=100\mu A$       | $T_J=25^\circ C$  | $V_R$  | 120   | 135  | V       |
| $I_F=10A$            | $T_J=25^\circ C$  | $V_F$  | 0.81  | 0.85 |         |
|                      | $T_J=125^\circ C$ |        | 0.7   | 0.72 |         |
| $V_R=V_{RRM}$        | $T_J=25^\circ C$  | $I_R$  | 0.23  | 1.0  | $\mu A$ |
|                      | $T_J=125^\circ C$ |        | -     | 5.0  | mA      |

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

### Typical Characteristics

Fig 1.  $I_F$  VS  $V_F$

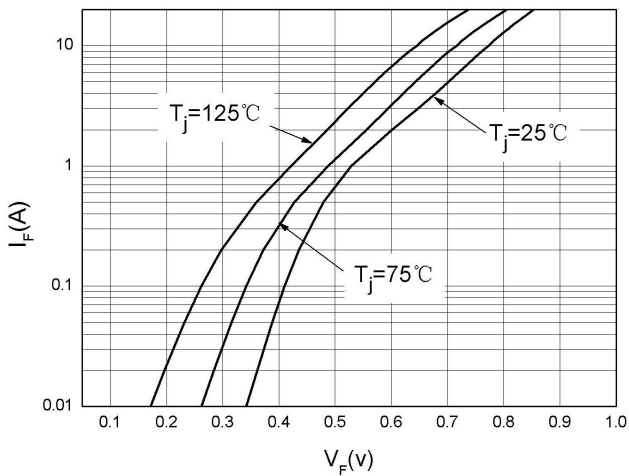


Fig 2.  $I_R$  VS  $V_R$

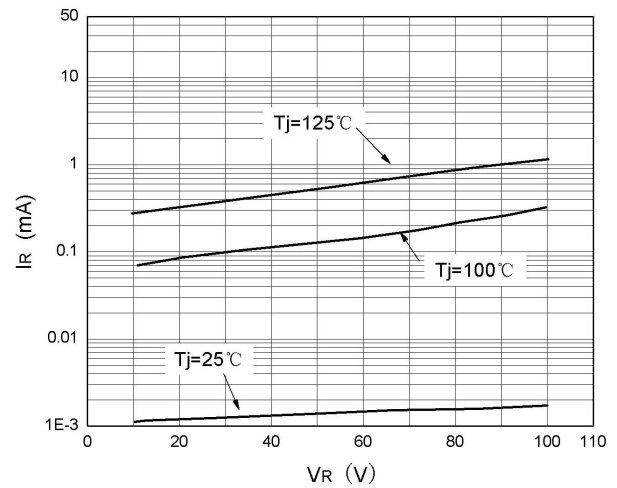


Fig 3.  $I_F(AV)$  vs  $T_C$

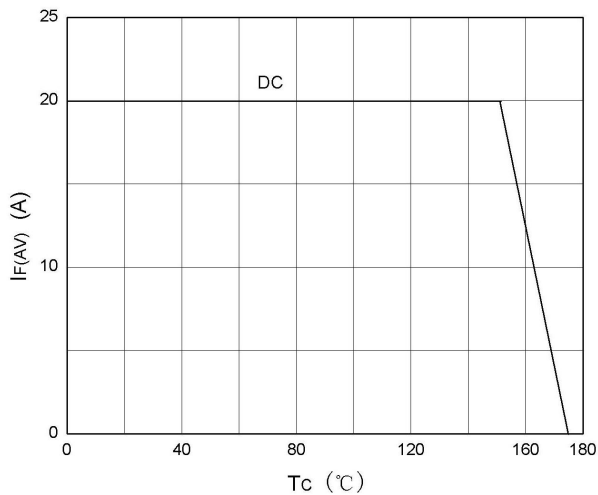
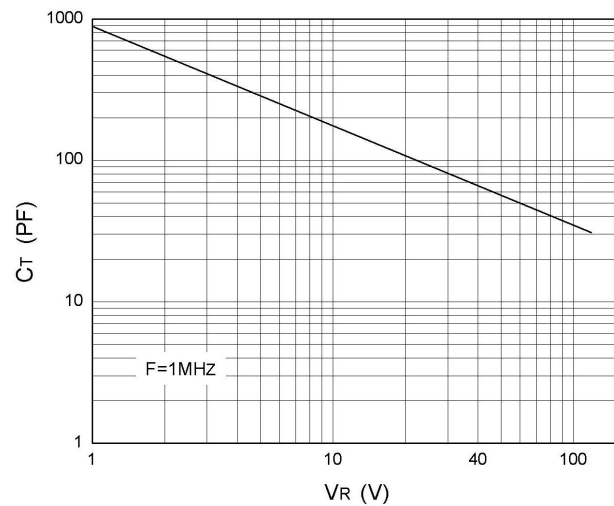
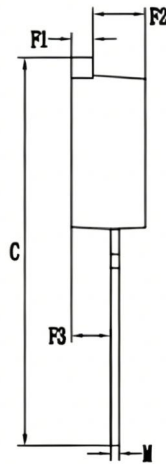
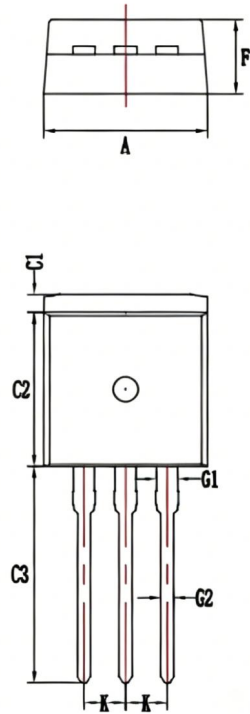


Fig 4.  $C_T$  vs  $V_R$



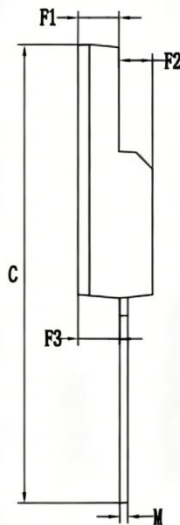
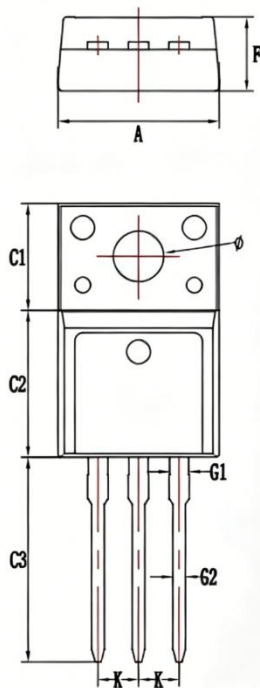
### Package Outlines

#### TO-262



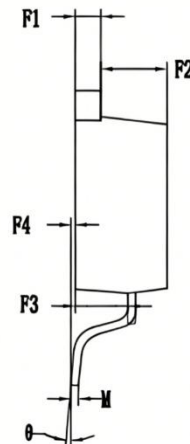
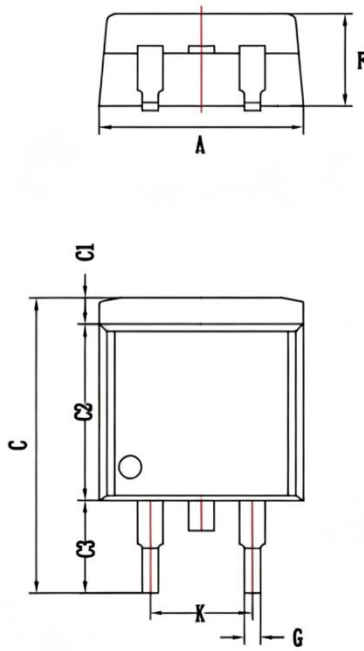
| DIMENSIONS(unit:mm) |        |        |
|---------------------|--------|--------|
| Symbol              | Min    | Max    |
| A                   | 9.900  | 10.100 |
| C                   | 23.500 | 23.900 |
| C1                  | 1.100  | 1.200  |
| C2                  | 9.300  | 9.500  |
| C3                  | 13.000 | 13.300 |
| Ø                   | 3.600  | 3.900  |
| F                   | 4.400  | 4.600  |
| F1                  | 1.250  | 1.350  |
| F2                  | 3.100  | 3.300  |
| F3                  | 2.300  | 2.700  |
| G1                  | 1.220  | 1.320  |
| G2                  | 0.750  | 0.850  |
| K                   | 2.540  |        |
| M                   | 0.450  | 0.550  |

#### TO-220F



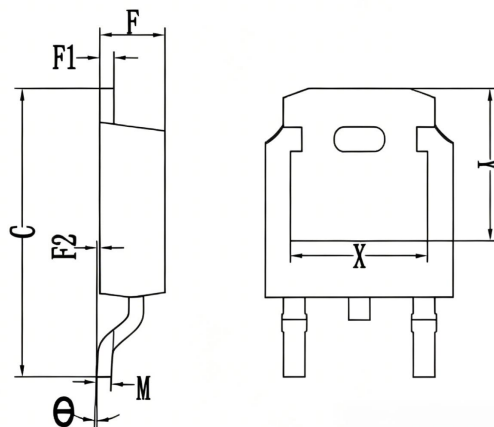
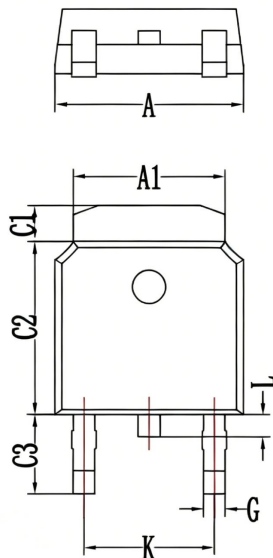
| DIMENSIONS(Unit:mm) |        |        |
|---------------------|--------|--------|
| Symbol              | Min    | Max    |
| A                   | 10.000 | 10.200 |
| C                   | 28.600 | 29.100 |
| C1                  | 6.580  | 6.780  |
| C2                  | 9.120  | 9.320  |
| C3                  | 12.800 | 13.100 |
| Ø                   | 3.330  | 3.430  |
| F                   | 4.450  | 4.750  |
| F1                  | 2.400  | 2.600  |
| F2                  | 2.000  | 2.200  |
| F3                  | 2.300  | 2.700  |
| G1                  | 1.150  | 1.250  |
| G2                  | 0.750  | 0.850  |
| K                   | 2.540  |        |
| M                   | 0.450  | 0.550  |

### TO-263



| DIMENSIONS(Unit:mm) |        |        |
|---------------------|--------|--------|
| Symbol              | Min    | Max    |
| A                   | 10.000 | 10.200 |
| C                   | 14.450 | 14.850 |
| C1                  | 1.250  | 1.350  |
| C2                  | 8.640  | 8.840  |
| C3                  | 4.460  | 4.760  |
| F                   | 4.420  | 4.720  |
| F1                  | 1.220  | 1.320  |
| F2                  | 3.200  | 3.400  |
| F3                  | 2.470  | 2.720  |
| F4                  | 0.000  | 0.200  |
| $\theta$            | 0°     | 8°     |
| G                   | 0.750  | 0.850  |
| K                   | 5.080  |        |
| M                   | 0.330  | 0.430  |

### TO-252



| DIMENSIONS(Unit:mm) |        |        |
|---------------------|--------|--------|
| Symbol              | Min    | Max    |
| A                   | 6.500  | 6.700  |
| A1                  | 5.230  | 5.430  |
| C                   | 10.000 | 10.400 |
| C1                  | 1.220  | 1.320  |
| C2                  | 6.000  | 6.200  |
| C3                  | 2.700  | 3.000  |
| F                   | 2.200  | 2.400  |
| F1                  | 0.450  | 0.550  |
| F2                  | 0.000  | 0.100  |
| M                   | 0.450  | 0.550  |
| K                   | 4.550  | 4.650  |
| G                   | 0.710  | 0.810  |
| L                   | 0.600  | 0.900  |
| $\theta$            | 0°     | 5°     |
| X                   | 4.650  | 4.850  |
| Y                   | 5.250  | 5.550  |

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