

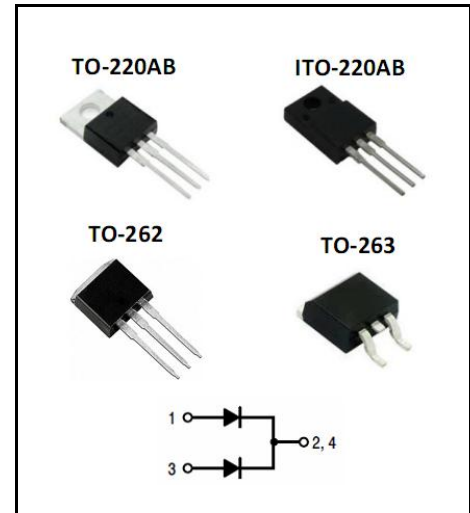
Trench MOS Barrier Schottky Rectifier
Reverse Voltage - 300 V
Forward Current - 20 A

FEATURES

- ◆ Advanced trench technology
- ◆ Low forward voltage drop
- ◆ Low power losses
- ◆ High efficiency operation
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: TO-220AB/ITO220AB/TO-262/TO-263
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026


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

| Parameter | Symbols | Value | Units |
|--|------------------|------------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 300 | V |
| Maximum RMS voltage | V_{RMS} | 300 | V |
| Maximum DC Blocking Voltage | V_{DC} | 300 | V |
| Maximum Average Forward Rectified Current | Per device | 20 | A |
| | Per diode | 10 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode | I_{FSM} | 100 | A |
| Operating Temperature Range | T_J | -65 ~ +150 | °C |
| Storage Temperature Range | T_{STG} | -65 ~ +150 | °C |
| Typical Thermal Resistance Per diode(munted on FR-4 PCB) | TO-220AB/TO-263 | 2 | °C/W |
| | ITO-220AB/TO-262 | 4 | °C/W |

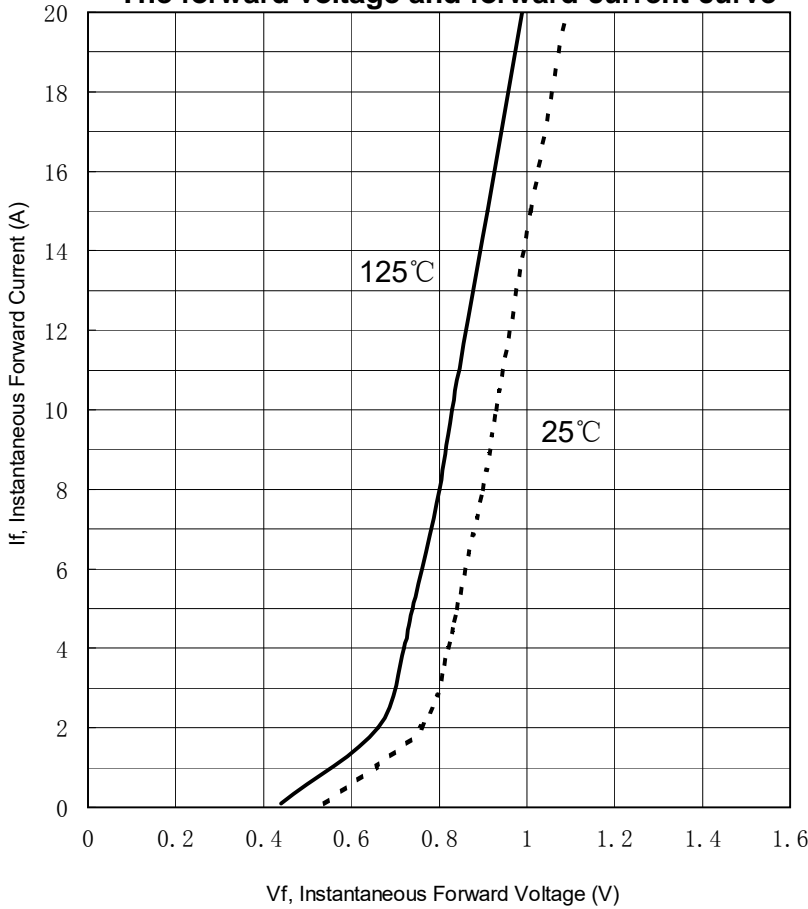
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.
Electrical Characteristics (Per Leg) unless otherwise specified

| Characteristics | Symbols | Value | | Units | |
|--|---------|----------|-----|-------|------|
| Forward Voltage Drop(Note2) | V_F | Typ | Max | V | |
| at $I_F=10A$ Instantaneous forward voltage per diode | | TA=25°C | - | | 0.93 |
| | | TA=125°C | - | | 0.90 |
| Instantaneous reverse current per diode at rated reverse voltage | I_R | TA=25°C | 200 | uA | |
| | | TA=125°C | 20 | mA | |

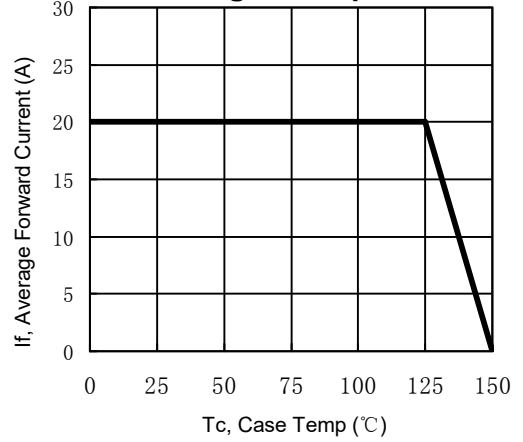
Note2: (1)Pulse test: 300 μs pulse width, 1 % duty cycle
(2) Pulse test: Pulse width ≤ 40 ms

RATINGS AND CHARACTERISTIC CURVES

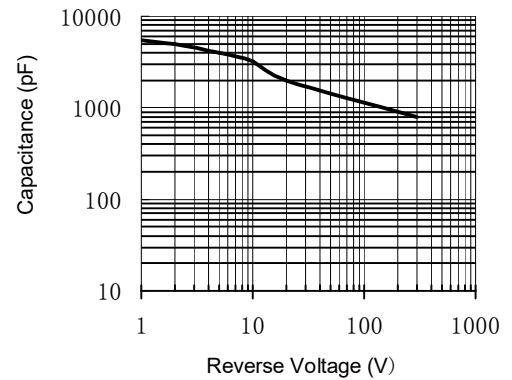
The forward voltage and forward current curve



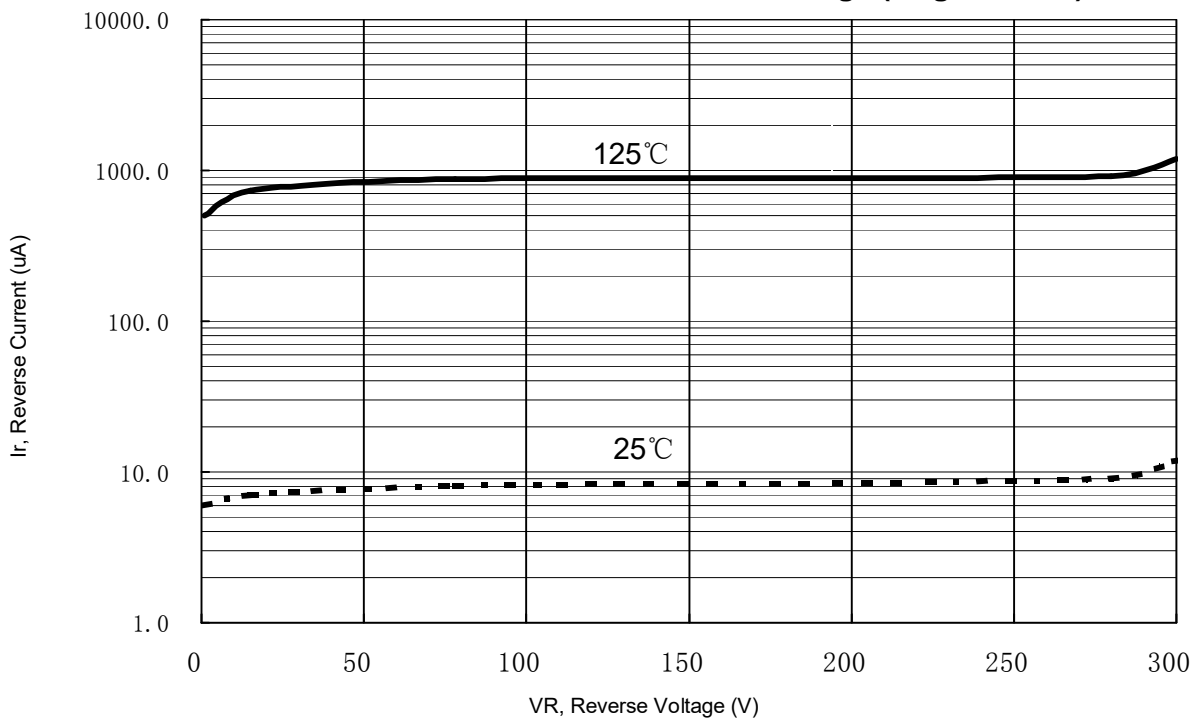
Current derating curve, per element



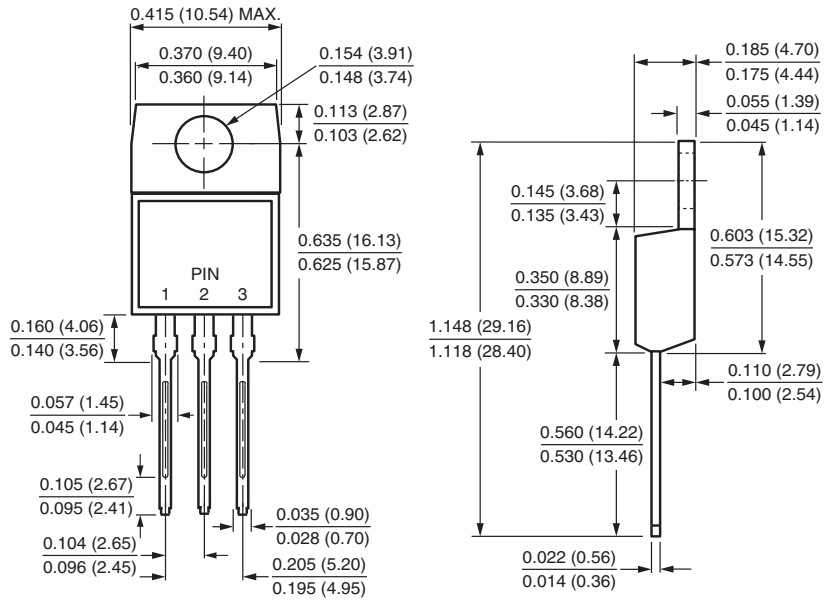
The crunode capacitance curve



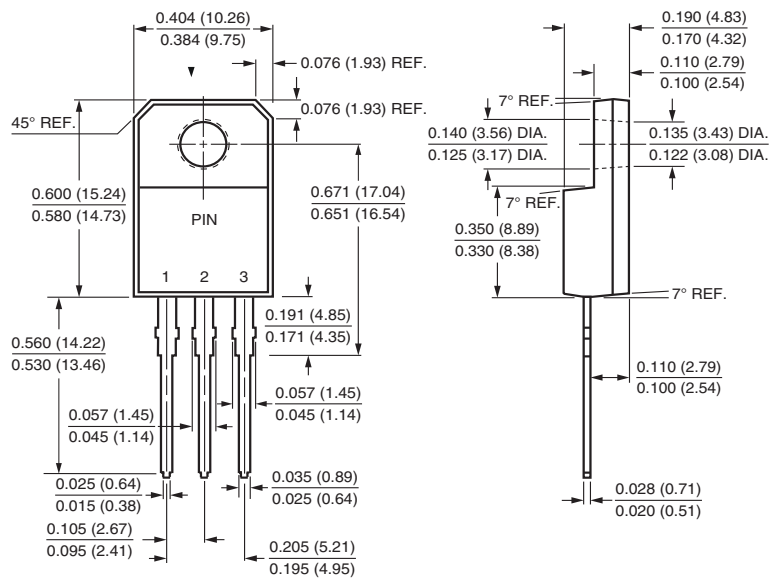
The reverse leak current and the reverse voltage (single-device) curve.



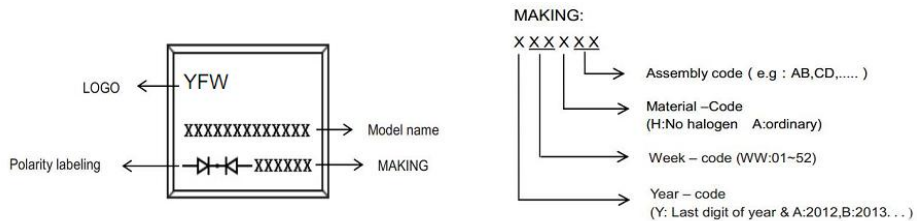
Package Outline TO-220AB



ITO-220AB



Marking on the body

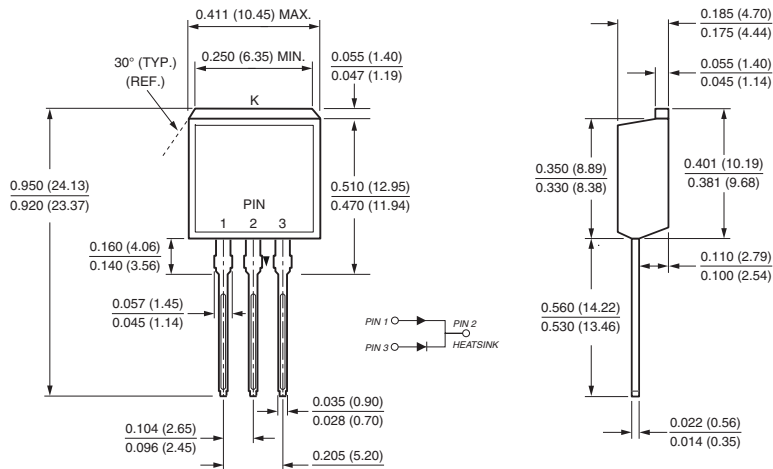


Summary of Packing Options

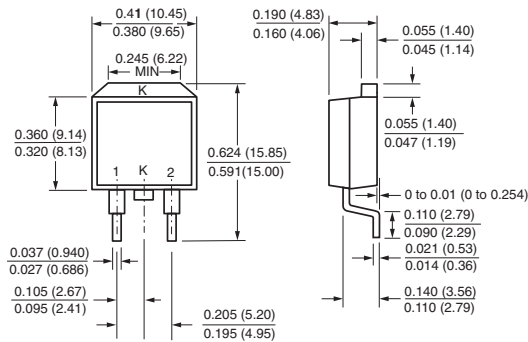
| Package | Packing Description | Packing Quantity | Industry Standard |
|-----------|---------------------|------------------|-------------------|
| TO-220AB | Tube | 50/1000/5000 | EIA-481-1 |
| ITO-220AB | Tube | 50/1000/5000 | EIA-481-1 |

Package Outline

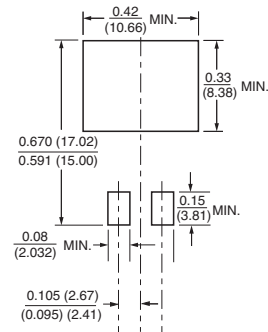
TO-262AA



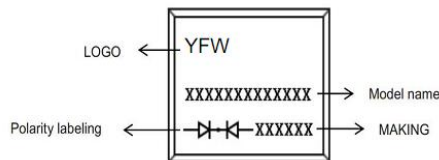
TO-263



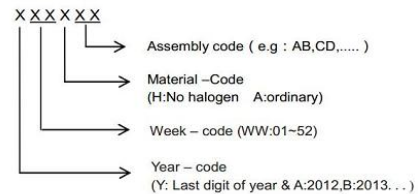
Mounting Pad Layout



Marking on the body



MAKING:



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|----------|---------------------|------------------|-------------------|
| TO-262AA | Tube | 50/1000/5000 | EIA-481-1 |
| TO-263 | Tube | 50/1000/5000 | EIA-481-1 |