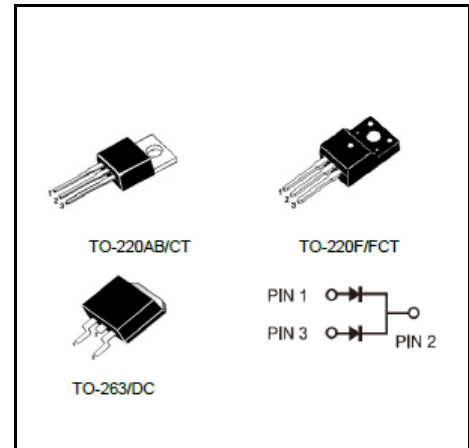


Trench MOS Barrier Schottky Rectifier
Reverse Voltage - 80 V
Forward Current - 20 A
FEATURES

- ◆Very low forward voltage
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆Guarding for over voltage protection
- ◆Lead free in comply with EU RoHS 2011/65/EU directives


MECHANICAL DATA

- ◆Case: TO-220AB/CT TO-220F/FCT TO-263/DC
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106

Primary Characteristic

| | |
|--------------------------|--------------|
| I_o | 2*10A |
| V_{RRM} | 80V |
| I_{FSM} | 160A |
| V_F | 0.54V |
| T_J Max | 150°C |

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

| Parameter | Symbols | Value | Units |
|---|------------------------|------------|-------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 80 | V |
| Working Peak Reverse Voltage | V_{RWM} | 80 | V |
| Maximum DC Blocking Voltage | V_{DC} | 80 | V |
| Maximum Average Forward Rectified Current | Per Leg | 10 | A |
| | Total | 20 | |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave | I_{FSM} | 160 | A |
| Operating Temperature Range | T_J | -55 ~ +150 | °C |
| Storage Temperature Range | T_{STG} | -55 ~ +150 | °C |
| Typical Thermal Resistance (Note1) TO-220AB, TO-263 TO-220F | R_{θJC} | 2/4 | °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 | |
|---|----------------------|----------|------|-------|-----------|
| | | Typ | Max | | |
| Forward Voltage Drop(Note2) at I _F =3A at I _F =5A at I _F =10A | V_F | TA=25°C | 0.43 | - | V |
| | | TA=125°C | 0.34 | - | |
| | | TA=25°C | 0.47 | 0.55 | |
| | | TA=125°C | 0.41 | - | |
| | | TA=25°C | 0.57 | 0.63 | |
| | | TA=125°C | 0.54 | - | |
| Maximum Reverse Current at V _R =80V | I_R | TA=25°C | 21 | 60 | uA |
| | | TA=125°C | 11 | - | mA |

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

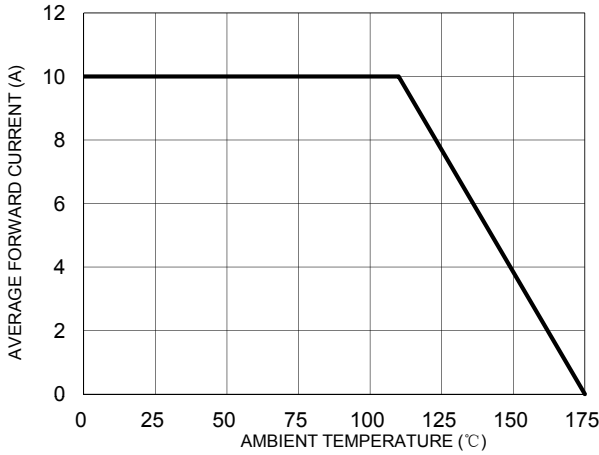


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

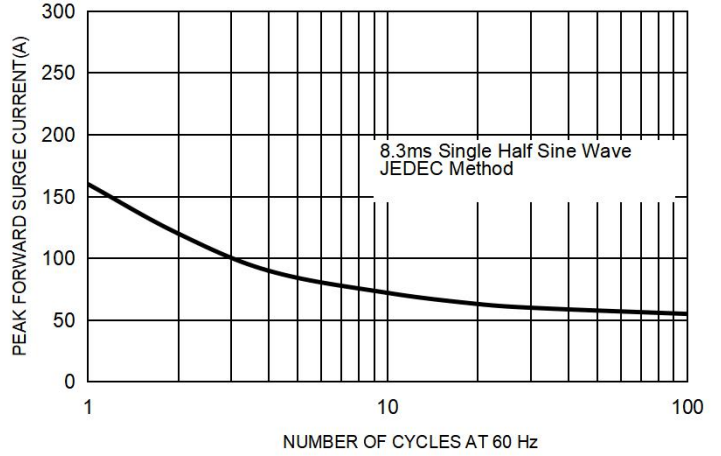


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

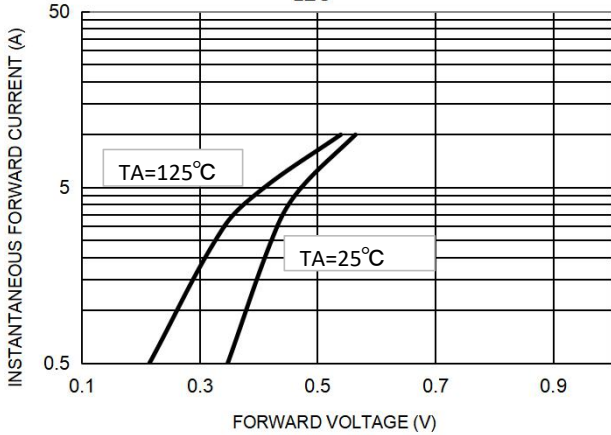
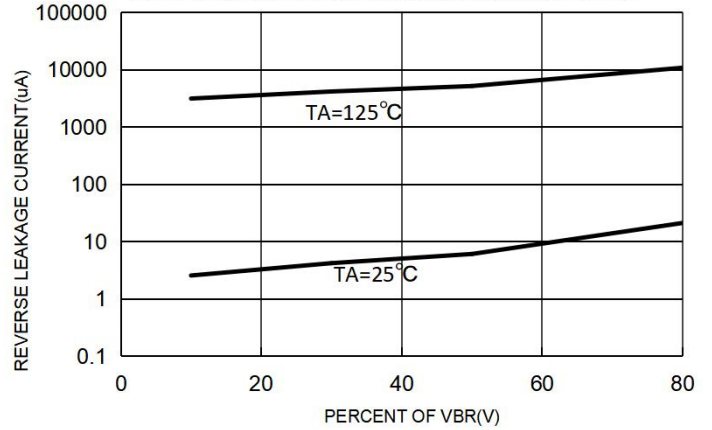
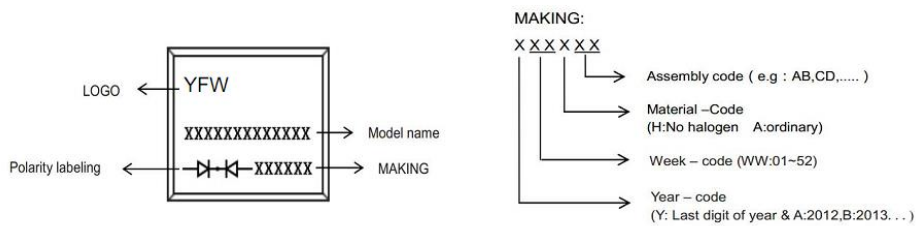


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



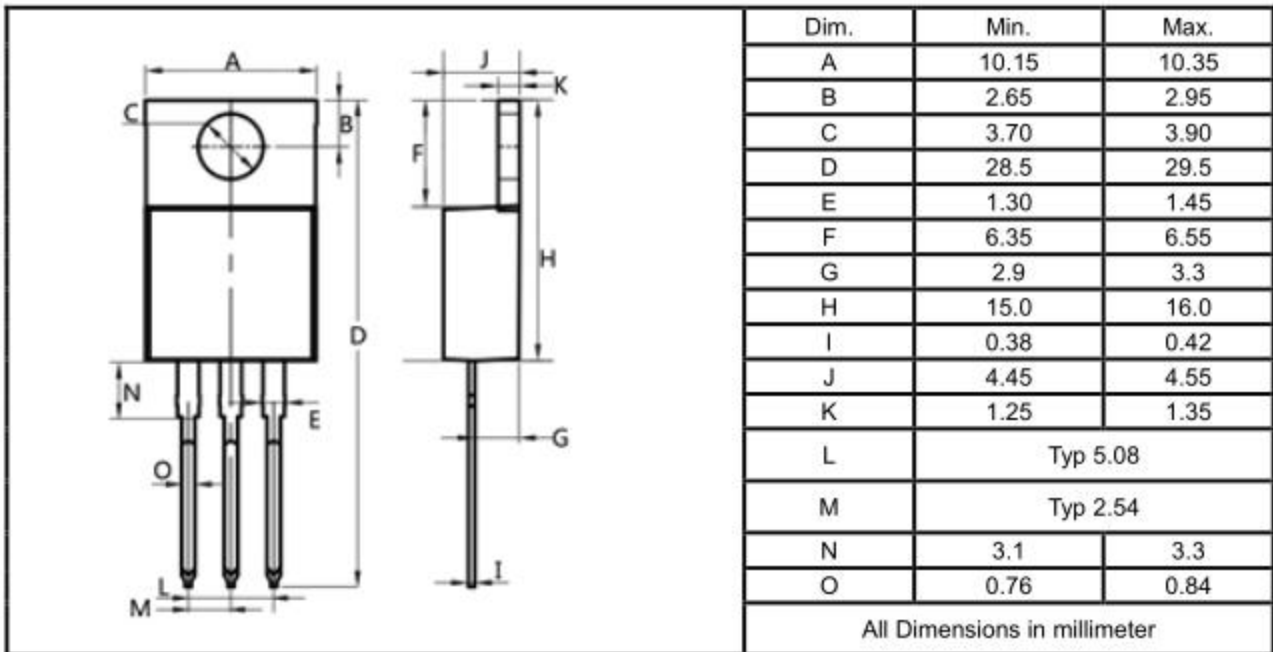
Ordering information

| Part Number | Package | Unit Weight | Base Quantity | Delivery mode |
|--------------|----------|---------------|----------------|----------------------------|
| SRT20V80CT | TO-220AB | 0.07oz(1.96g) | 50 pcs / tube | 1000pcs/box 5000pcs/carton |
| SRT20V80FCT | TO-220F | 0.06oz(1.74g) | 50 pcs / tube | 1000pcs/box 5000pcs/carton |
| SRT20V80DC | TO-263 | 0.04oz(1.16g) | 50 pcs / tube | 1000pcs/box 5000pcs/carton |
| SRT20V80DC-R | TO-263 | 0.04oz(1.16g) | 800 pcs / reel | 800pcs/box4000pcs/carton |

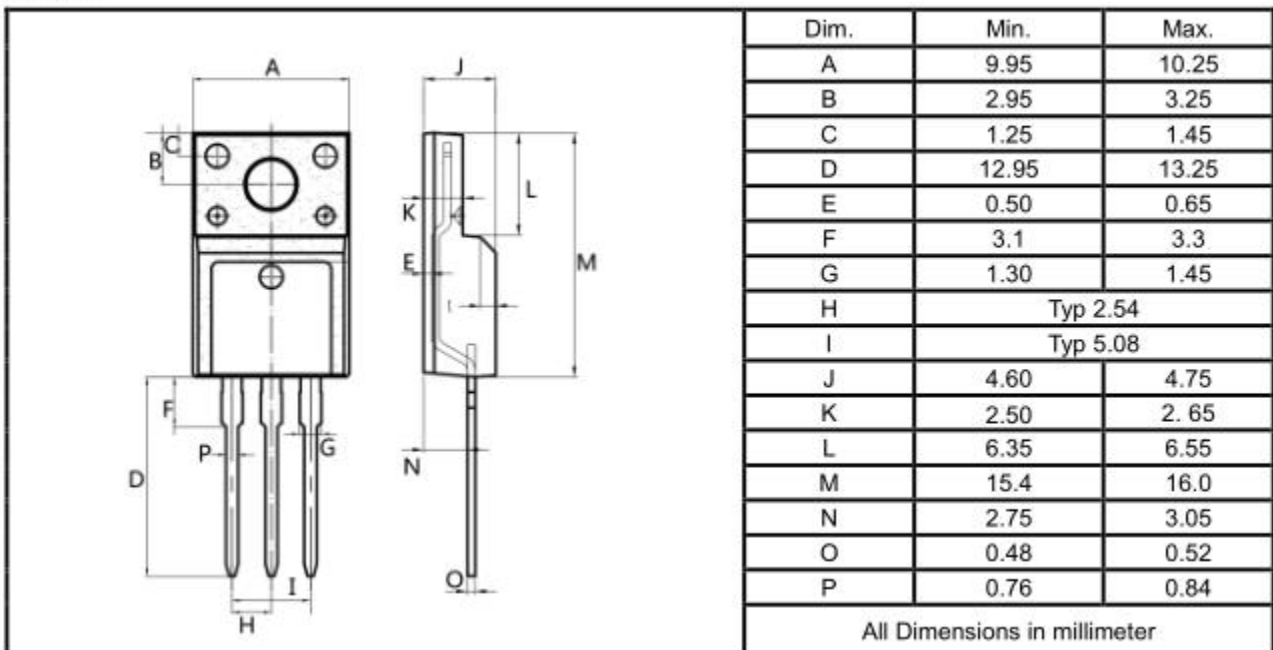
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

TO-220AB

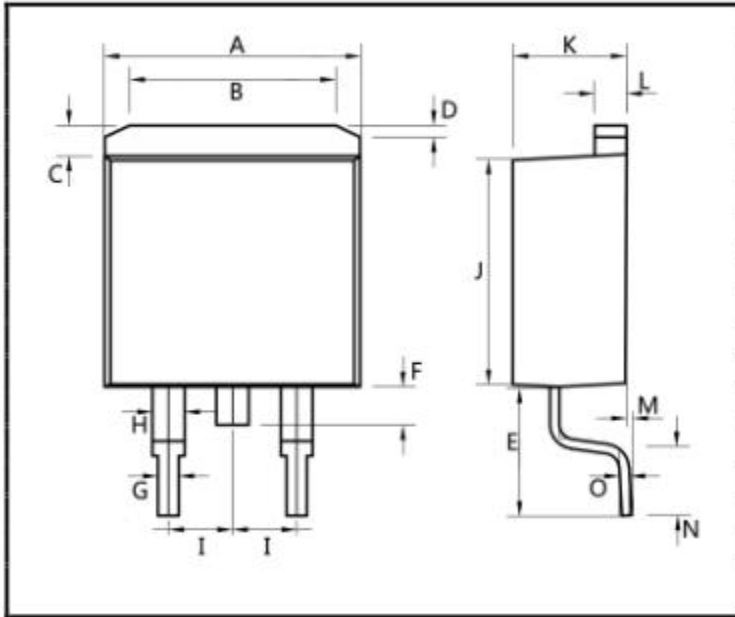


TO-220F



Package Outline Dimensions millimeters

TO-263



| Dim. | Min. | Max. |
|------------------------------|----------|------|
| A | 10.1 | 10.2 |
| B | 7.4 | 7.6 |
| C | 1.3 | 1.5 |
| D | 0.55 | 0.75 |
| E | 5.0 | 6.0 |
| F | 1.4 | 1.6 |
| G | 0.78 | 0.86 |
| H | 1.2 | 1.3 |
| I | Typ 2.54 | |
| J | 8.4 | 8.6 |
| K | 4.45 | 4.55 |
| L | 1.25 | 1.35 |
| M | 0.02 | 0.1 |
| N | 2.4 | 2.8 |
| O | 0.36 | 0.40 |
| All Dimensions in millimeter | | |