

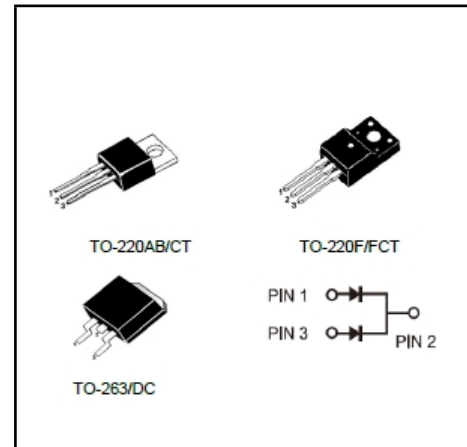
**Trench MOS Barrier Schottky Rectifier**
**Reverse Voltage - 100 V**
**Forward Current - 10A**

**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**

|                          |              |
|--------------------------|--------------|
| <b>I<sub>o</sub></b>     | <b>2*5A</b>  |
| <b>V<sub>RRM</sub></b>   | <b>100V</b>  |
| <b>I<sub>FSM</sub></b>   | <b>80A</b>   |
| <b>V<sub>F</sub></b>     | <b>0.62V</b> |
| <b>T<sub>J</sub> Max</b> | <b>150°C</b> |

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

| Parameter   | Symbols                                 | Value      | Units       |
|---|---|------------|-------------|
| Maximum Repetitive Peak Reverse Voltage                     | <b>V<sub>RRM</sub></b>                  | 100        | <b>V</b>    |
| Maximum RMS voltage   | <b>V<sub>RMS</sub></b>                  | 100        | <b>V</b>    |
| Maximum DC Blocking Voltage                                 | <b>V<sub>DC</sub></b>                   | 100        | <b>V</b>    |
| Maximum Average Forward Rectified Current                   | Per Leg                                 | 5          | <b>A</b>    |
|   | Total                                   | 10         |             |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave     | <b>I<sub>FSM</sub></b>                  | 80         | <b>A</b>    |
| Operating Temperature Range                                 | <b>T<sub>J</sub></b>                    | -50 ~ +150 | <b>°C</b>   |
| Storage Temperature Range                                   | <b>T<sub>STG</sub></b>                  | -50 ~ +150 | <b>°C</b>   |
| Typical Thermal Resistance (Note1) TO-220AB, TO-263 TO-220F | <b>R<sub>θJA</sub>/ R<sub>θJC</sub></b> | 2/4        | <b>°C/W</b> |

**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)                     | <b>V<sub>F</sub></b> | 0.45     | -    | <b>V</b>  |
| at I <sub>F</sub> =1A                           |                      |          |      |           |
|   |                      | TA=125°C |      |           |
| at I <sub>F</sub> =2A                           |                      | TA=25°C  |      |           |
|   |                      | TA=125°C |      |           |
| at I <sub>F</sub> =5A                           |                      | TA=25°C  | 0.67 |           |
|   | TA=125°C             | 0.62     | -    |           |
| Maximum Reverse Current at V <sub>R</sub> =100V | <b>I<sub>R</sub></b> | 5        | 30   | <b>uA</b> |
|   |                      | 3        | -    | <b>mA</b> |

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

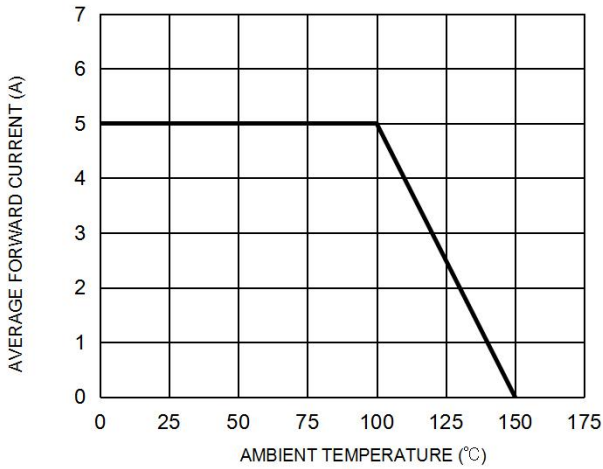


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

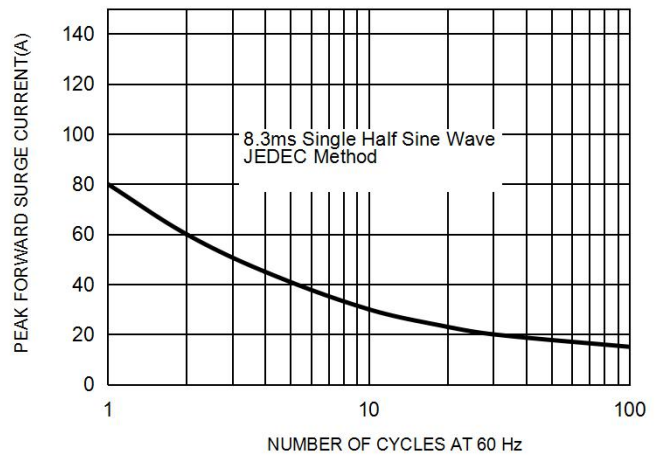


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

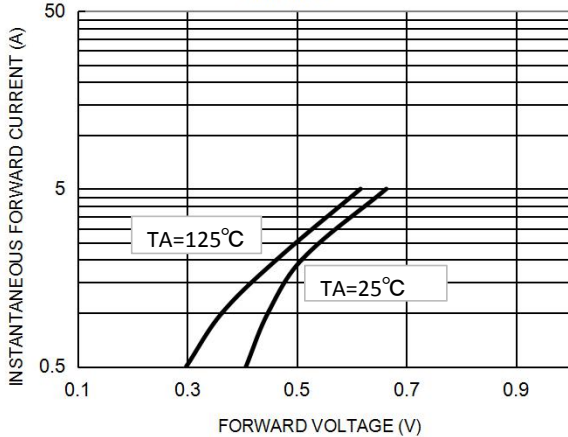
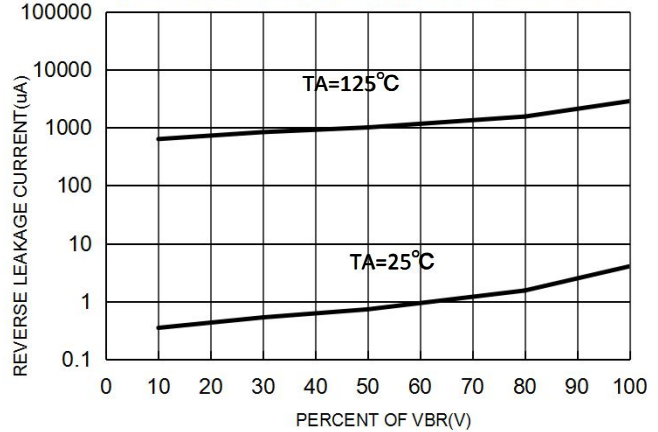


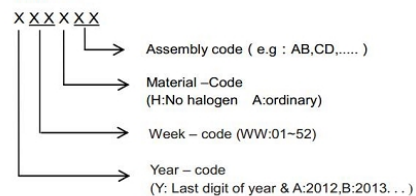
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**MAKING:**



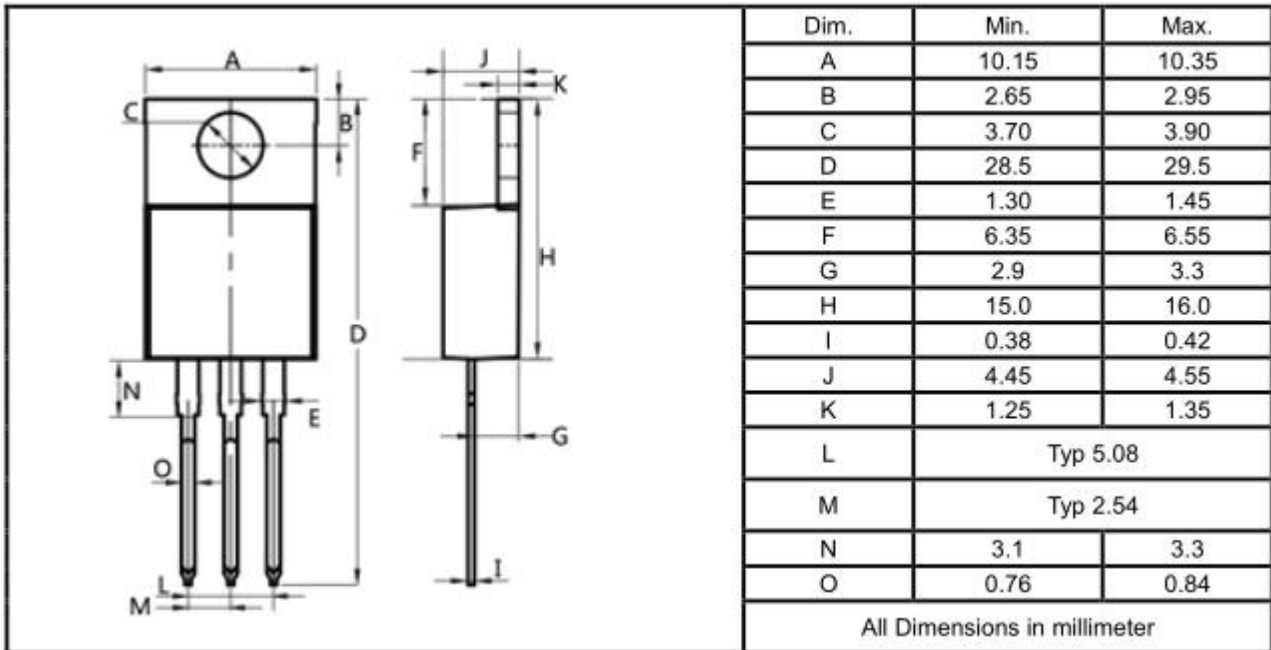
**Ordering information**

| Part Number   | Package  | Unit Weight   | Base Quantity  | Delivery mode              |
|---------------|----------|---------------|----------------|----------------------------|
| SRT10L100CT   | TO-220AB | 0.07oz(1.96g) | 50 pcs / tube  | 1000pcs/box 5000pcs/carton |
| SRT10L100FCT  | TO-220F  | 0.06oz(1.74g) | 50 pcs / tube  | 1000pcs/box 5000pcs/carton |
| SRT10L100DC   | TO-263   | 0.04oz(1.16g) | 50 pcs / tube  | 1000pcs/box 5000pcs/carton |
| SRT10L100DC-R | TO-263   | 0.04oz(1.16g) | 800 pcs / reel | 800pcs/box4000pcs/carton   |

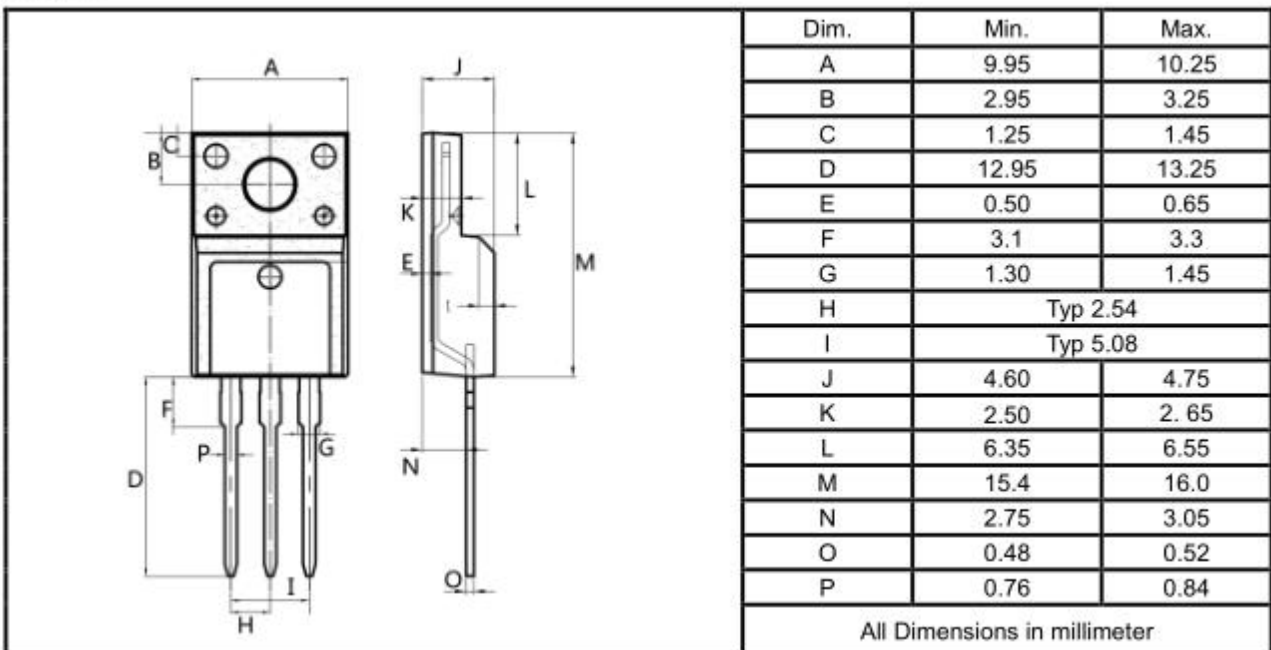
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

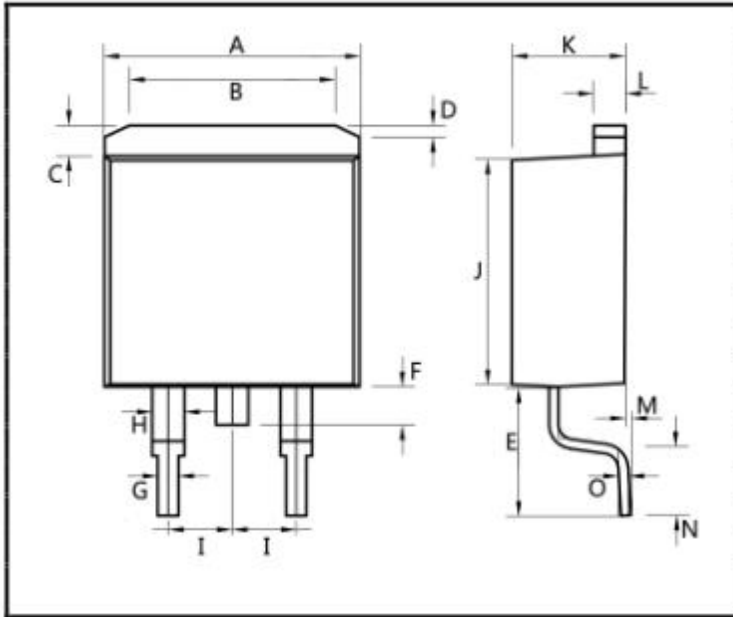
**TO-220AB**



**TO-220F**



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 |          |      |