



Features

Low power loss, high efficiency.

High surge capacity

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Metal silicon junction, majority carrier conduction.

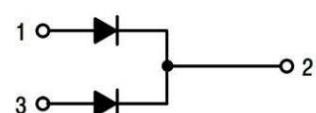
High current Capability, low forward voltage drop.

Guard ring for over voltage protection.



TO-220F

PIN CONNECTIONS



Absolute Maximum Ratings (T_c=25°C)

| Parameter | Symbol | Limit | Unit |
|---|--------------------|-----------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 45 | V |
| Maximum RMS Voltage | V _{RMS} | 31.5 | V |
| Maximum DC Blocking Voltage | V _{R(DC)} | 45 | V |
| Maximum Average Forward Current | I _{F(AV)} | 10 | A |
| Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150 | A |
| Maximum Forward Voltage at 15A per leg | V _F | 0.65 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I _R | 0.1 20 | mA mA |
| Maximum Operating Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -65~+150 | °C |
| Typical Thermal Resistance | R _{θJC} | 1.4 | °C/W |



Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

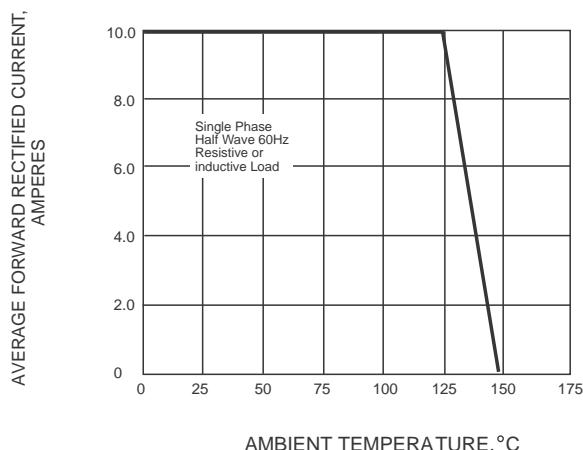


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

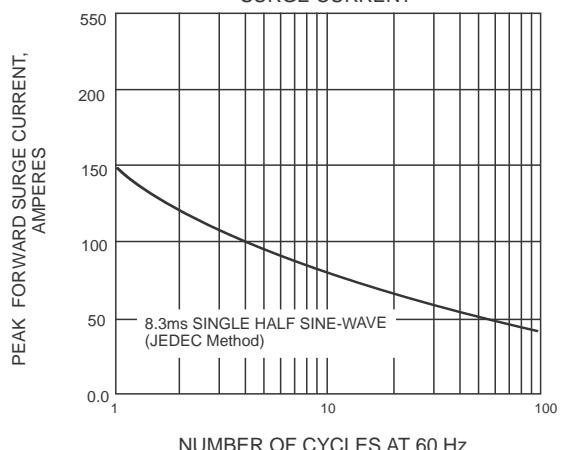


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

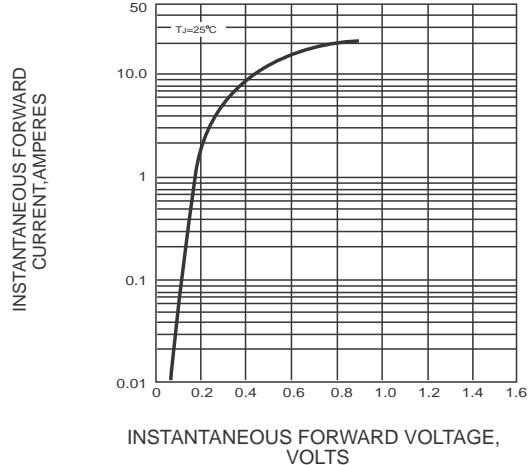
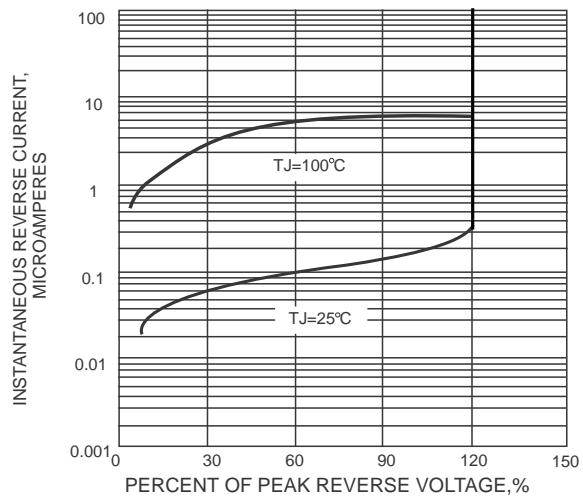
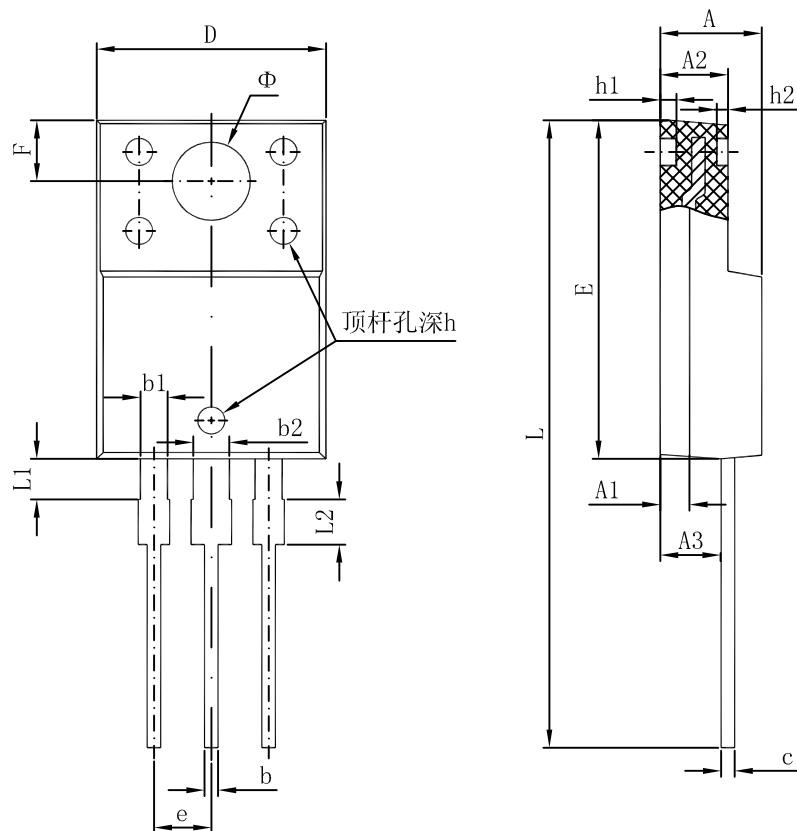


FIG. 4-TYPICAL REVERSE CHARACTERISTICS





TO-220F Package Information



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|--------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 4.300 | 4.700 | 0.169 | 0.185 |
| A1 | 1.300 | REF. | 0.051 | REF. |
| A2 | 2.800 | 3.200 | 0.110 | 0.126 |
| A3 | 2.500 | 2.900 | 0.098 | 0.114 |
| b | 0.500 | 0.750 | 0.020 | 0.030 |
| b1 | 1.100 | 1.350 | 0.043 | 0.053 |
| b2 | 1.500 | 1.750 | 0.059 | 0.069 |
| c | 0.500 | 0.750 | 0.020 | 0.030 |
| D | 9.960 | 10.360 | 0.392 | 0.408 |
| E | 14.800 | 15.200 | 0.583 | 0.598 |
| e | 2.540 | TYP. | 0.100 | TYP. |
| F | 2.700 | REF. | 0.106 | REF. |
| Φ | 3.500 | REF. | 0.138 | REF. |
| h | 0.000 | 0.300 | 0.000 | 0.012 |
| h1 | 0.800 | REF. | 0.031 | REF. |
| h2 | 0.500 | REF. | 0.020 | REF. |
| L | 28.000 | 28.400 | 1.102 | 1.118 |
| L1 | 1.700 | 1.900 | 0.067 | 0.075 |
| L2 | 1.900 | 2.100 | 0.075 | 0.083 |



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