

Rectifier Diode ISOPLUS220™

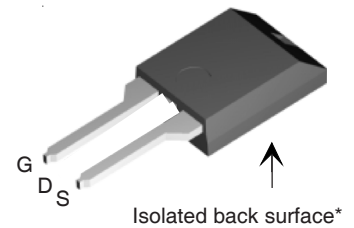
$V_{RRM} = 800 - 1200 \text{ V}$
 $I_{F(AV)M} = 30 \text{ A}$

Electrically Isolated Back Surface

| V_{RSM} V | V_{RRM} V | Type |
|----------------|----------------|-------------|
| 900 | 800 | DSI 30-08AC |
| 1300 | 1200 | DSI 30-12AC |



ISOPLUS 220™



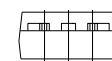
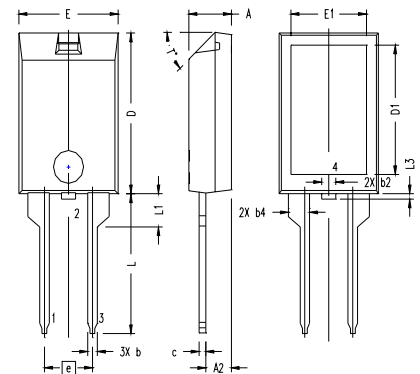
Preliminary Data Sheet

| Symbol | Conditions | Maximum Ratings | |
|------------|--|--------------------|------------------|
| I_{FRMS} | $T_C = 95^\circ\text{C}; 180^\circ$ sine (RMS current limited) | 60 | A |
| I_{FAV} | | 30 | A |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz), sine | 200 | A |
| | $V_R = 0 \text{ V}; t = 8.3 \text{ ms}$ (60 Hz), sine | 210 | A |
| I^2t | $T_{VJ} = 150^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz), sine | 175 | A |
| | $V_R = 0 \text{ V}; t = 8.3 \text{ ms}$ (60 Hz), sine | 185 | A |
| I^2t | $T_{VJ} = 45^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz), sine | 200 | A ² s |
| | $V_R = 0 \text{ V}; t = 8.3 \text{ ms}$ (60 Hz), sine | 185 | A ² s |
| T_{VJ} | $T_{VJ} = 150^\circ\text{C}; t = 10 \text{ ms}$ (50 Hz), sine | 155 | A ² s |
| | $V_R = 0 \text{ V}; t = 8.3 \text{ ms}$ (60 Hz), sine | 145 | A ² s |
| T_{VJ} | | -55...+150 | °C |
| T_{VJM} | | 150 | °C |
| T_{stg} | | -55...+150 | °C |
| T_L | 1.6 mm (0.062 in.) from case for 10 s | 260 | °C |
| V_{ISOL} | 50/60 Hz RMS; $I_{ISOL} \leq 1 \text{ mA}$ | 2500 | V~ |
| F_C | Mounting Force | 11...65 / 2.4...11 | N / lb |
| Weight | typical | 2 | g |

Features

- Silicon chip on Direct-Copper-Bond substrate
- High power dissipation
- Isolated mounting surface
- 2500V electrical isolation
- Low cathode to tab capacitance(15pF typical)
- International standard package
- Epoxy meets UL 94V-0

ISOPLUS220 Outline (2 leads)



| SYM | INCHES | | MILLIMETERS | |
|-----|------------|------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | .157 | .197 | 4.00 | 5.00 |
| A2 | .098 | .118 | 2.50 | 3.00 |
| b | .035 | .051 | 0.90 | 1.30 |
| b2 | .049 | .065 | 1.25 | 1.65 |
| b4 | .093 | .100 | 2.35 | 2.55 |
| c | .028 | .039 | 0.70 | 1.00 |
| D | .591 | .630 | 15.00 | 16.00 |
| D1 | .472 | .512 | 12.00 | 13.00 |
| E | .394 | .433 | 10.00 | 11.00 |
| E1 | .295 | .335 | 7.50 | 8.50 |
| e | .200 BASIC | | 5.08 BASIC | |
| L | .512 | .571 | 13.00 | 14.50 |
| L1 | .118 | .138 | 3.00 | 3.50 |
| L3 | .000 | .059 | 0.00 | 1.50 |
| T* | | | 42.5° | 47.5° |

NOTE:
1. Bottom heatsink (Pin 4) is electrically isolated from Pin 1, 2, or 3.

| Symbol | Conditions | Characteristic Values | |
|------------|---|-----------------------|------|
| | | typ. | max. |
| I_R | $T_{VJ} = 25^\circ\text{C}; V_R = V_{RRM}$ $T_{VJ} = T_{VJM}; V_R = V_{RRM}$ | 0.05 | mA |
| | | 1.5 | mA |
| V_F | $I_F = 45 \text{ A}; T_{VJ} = 25^\circ\text{C}$ | 1.45 | V |
| V_{TO} | For power loss calculations only | 0.80 | V |
| r_T | $T_{VJ} = T_{VJM}$ | 15 | mΩ |
| R_{thJC} | | 1.1 | K/W |
| R_{thCH} | | 0.6 | K/W |

Note: See DSI 30..A data sheet for electrical characteristic curves.

IXYS reserves the right to change limits, conditions and dimensions.