

Source-Drain Diode

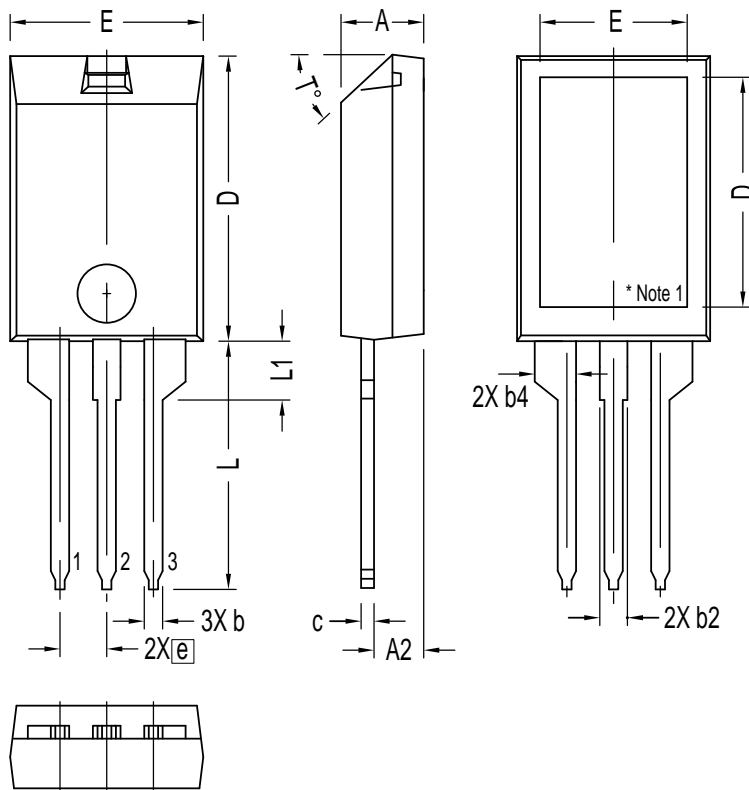
| Symbol | Conditions | Characteristic Values | | | |
|----------|--|-----------------------|------|------|---------------|
| | | min. | typ. | max. | |
| I_S | $V_{GS} = 0\text{ V}$ | | | 20 | A |
| V_{SD} | $I_F = 16\text{ A}; V_{GS} = 0\text{ V}$ | | 0.9 | 1.2 | V |
| t_{rr} | $I_F = 20\text{ A}; -di_F/dt = 100\text{ A}/\mu\text{s}; V_R = 480\text{ V}$ | | 500 | 800 | ns |
| Q_{RM} | | | 11 | | μC |
| I_{RM} | | | 70 | | A |

Component

| Symbol | Conditions | Maximum Ratings | |
|------------|---|-----------------|------|
| T_{VJ} | operating | -55...+150 | °C |
| T_{stg} | storage | -55...+150 | °C |
| V_{ISOL} | RMS leads-to-tab, 50/60 Hz, $f = 1\text{ minute}$ | 2500 | V~ |
| F_C | mounting force | 11-65 / 2.4-11 | N/lb |

| Symbol | Conditions | Characteristic Values | | |
|------------|------------------------|-----------------------|------|------|
| | | min. | typ. | max. |
| R_{thCH} | with heatsink compound | | 0.3 | K/W |
| Weight | | | 2.7 | g |

ISOPLUS220™ Outline



| 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 | .100 BASIC | | 2.55 | BASIC |
| L | .512 | .571 | 13.00 | 14.50 |
| L1 | .118 | .138 | 3.00 | 3.50 |
| T° | | | 42.5° | 47.5° |

NOTE:
 1. Bottom heatsink is electrically isolated from Pin 1, 2, or 3.
 2. This drawing will meet dimensional requirement of JEDEC SS Product Outline TO-273 except D and D1 dimension.

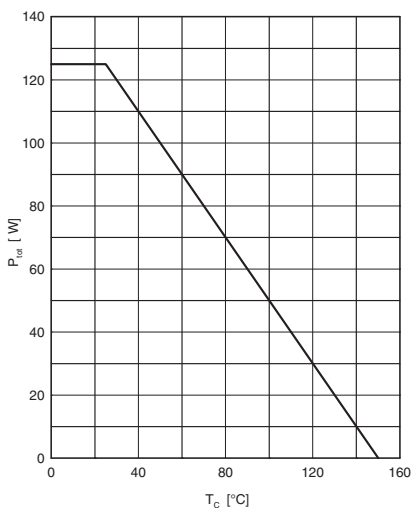


Fig. 1 Power dissipation

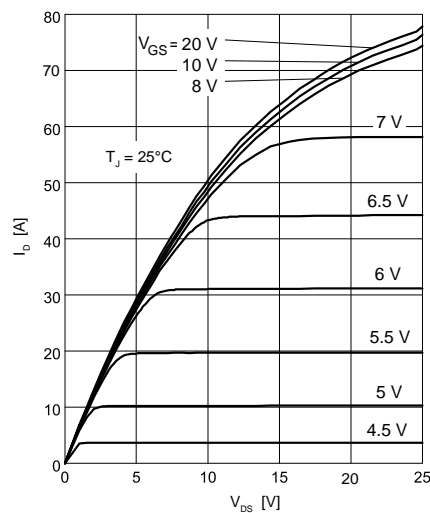


Fig. 2 Typ. output characteristics

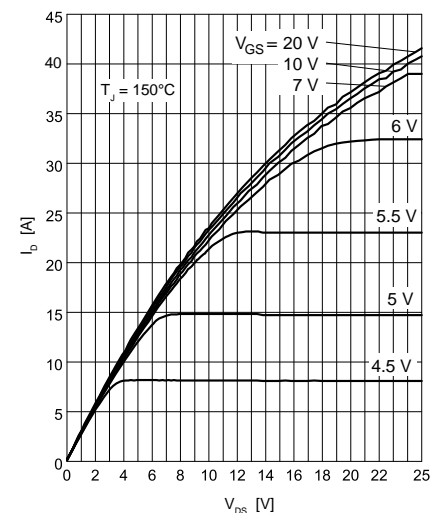


Fig. 3 Typ. output characteristics

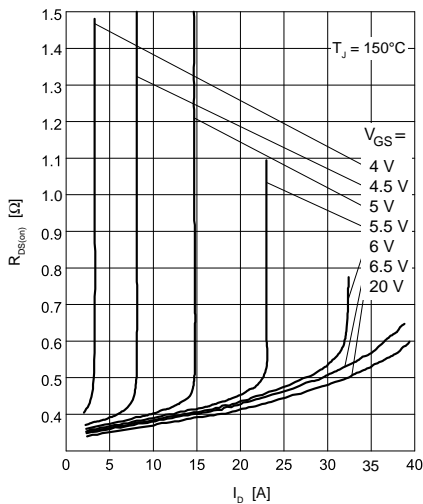


Fig. 4 Typ. drain-source on-state resistance

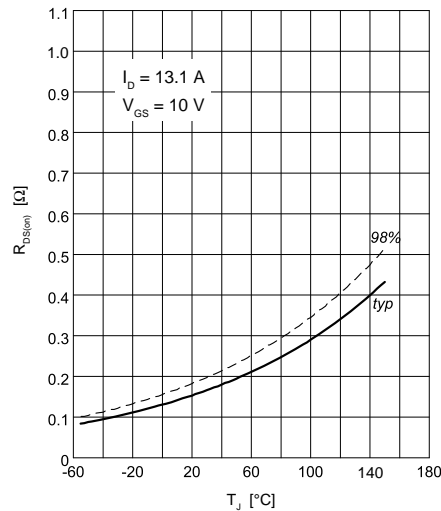


Fig. 5 Drain-source on-state resistance

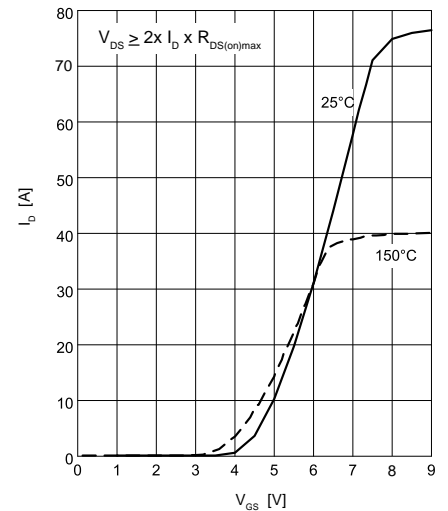


Fig. 6 Typ. transfer characteristics

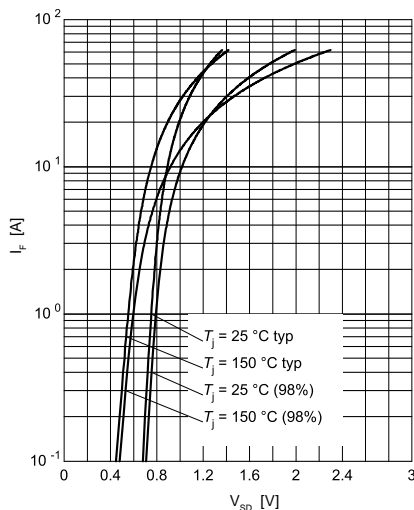


Fig. 7 Forward characteristic of reverse diode

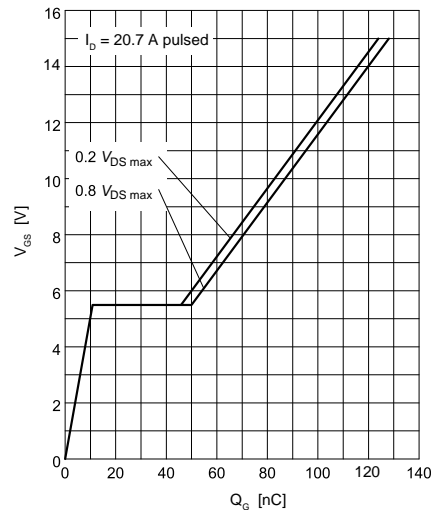


Fig. 8 Typ. gate charge

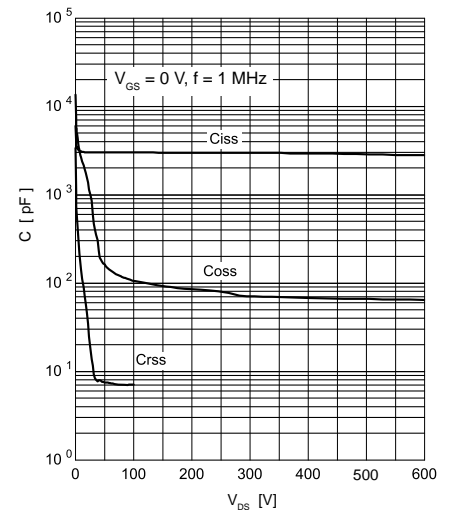


Fig. 9 Typ. capacitances

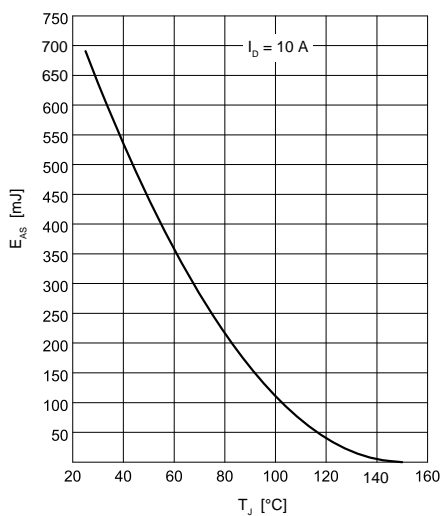


Fig. 10 Avalanche energy

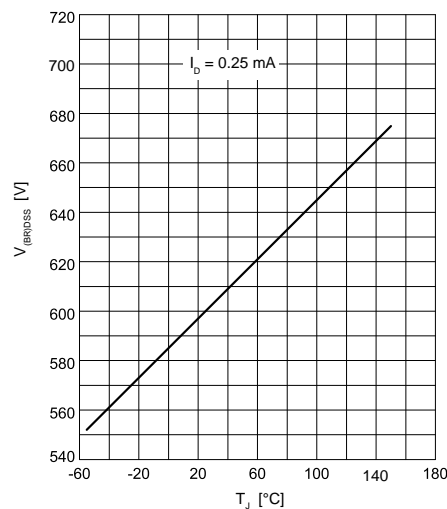


Fig. 11 Drain-source breakdown voltage

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

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