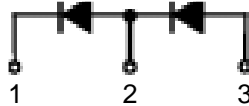
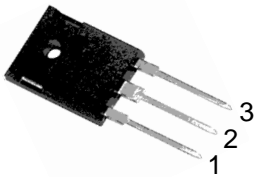
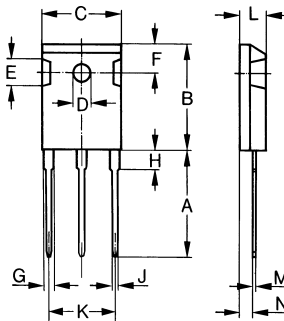


SDD25

Discrete Diodes



Dimensions TO-247AD



| Dim. | Millimeter | | Inches | |
|------|------------|-------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 19.81 | 20.32 | 0.780 | 0.800 |
| B | 20.80 | 21.46 | 0.819 | 0.845 |
| C | 15.75 | 16.26 | 0.610 | 0.640 |
| D | 3.55 | 3.65 | 0.140 | 0.144 |
| E | 4.32 | 5.49 | 0.170 | 0.216 |
| F | 5.4 | 6.2 | 0.212 | 0.244 |
| G | 1.65 | 2.13 | 0.065 | 0.084 |
| H | - | 4.5 | - | 0.177 |
| J | 1.0 | 1.4 | 0.040 | 0.055 |
| K | 10.8 | 11.0 | 0.426 | 0.433 |
| L | 4.7 | 5.3 | 0.185 | 0.209 |
| M | 0.4 | 0.8 | 0.016 | 0.031 |
| N | 1.5 | 2.49 | 0.087 | 0.102 |

| | V_{RSM} | V_{RRM} |
|----------|-----------|-----------|
| | V | V |
| SDD25N01 | 50 | 50 |
| SDD25N02 | 100 | 100 |
| SDD25N03 | 200 | 200 |
| SDD25N04 | 400 | 400 |
| SDD25N05 | 600 | 600 |
| SDD25N06 | 800 | 800 |
| SDD25N07 | 1000 | 1000 |

| Symbol | Test Conditions | Maximum Ratings | Unit |
|------------------------------------|--|---------------------------------|-------------|
| I_{FRMS} | $T_{VJ}=T_{VJM}$ | 43 | A |
| $I_{F(AV)M}$ | $T_C=100^{\circ}C$; 180° sine | 25 | |
| I_{FSM} | $T_{VJ}=45^{\circ}C$; $V_R=0V$; $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine | 300 330 | A |
| | $T_{VJ}=150^{\circ}C$; $V_R=0V$; $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine | 270 300 | |
| I^2t | $T_{VJ}=45^{\circ}C$; $V_R=0V$; $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine | 450 450 | A^2s |
| | $T_{VJ}=150^{\circ}C$; $V_R=0V$; $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine | 340 325 | |
| T_{VJ} T_{VJM} T_{stg} | | -40...+180 180 -40...+150 | $^{\circ}C$ |
| M_d | Mounting torque | 0.8...1.2 | Nm |
| F_c | Mounting force with clip | 20...120 | N |
| V_{ISOL} | 50/60Hz, RMS, $t=1$ minute, leads-to-tab | 2500 | V~ |
| Weight | | 6 | g |

| Symbol | Test Conditions | Characteristic Values | Unit |
|------------|--|-----------------------|-----------|
| I_R | $T_{VJ}=150^{\circ}C$; $V_R=V_{RRM}$ | ≤ 2 | mA |
| V_F | $I_F=55A$; $T_{VJ}=25^{\circ}C$ | ≤ 1.6 | V |
| V_{TO} | For power-loss calculations only | 0.8 | V |
| r_T | $T_{VJ}=T_{VJM}$ | 15 | $m\Omega$ |
| R_{thJC} | DC current | 1.5 | K/W |
| R_{thCK} | DC current (with heatsink compound) typ. | 0.4 | |