

CDBD8060-HF Thru. CDBD8100-HF

Reverse Voltage: 60 to 100 Volts

Forward Current: 8.0 Amp

RoHS Device

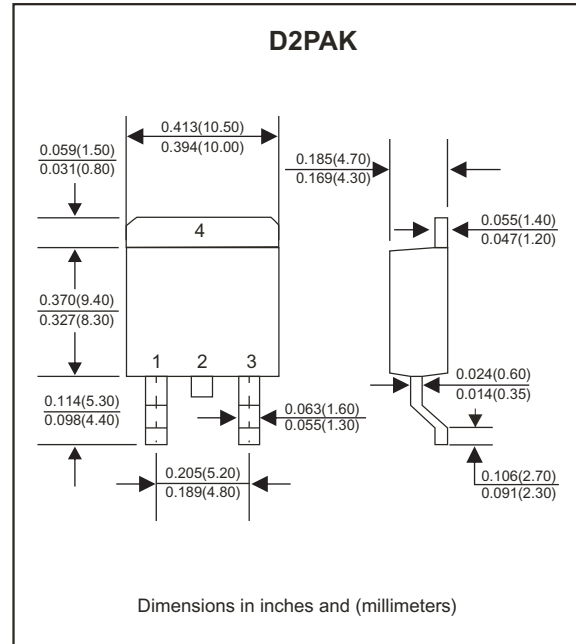
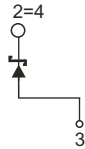
Halogen Free

Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical data

- Epoxy: U/L 94-V0 rate flame retardant.
- Case: TO-263/D2PAK, Transfer Molded.
- Terminals: solderable per MIL-STD-202, method 208.
- Polarity: As marked.
- Weunting Position: Any
- Weight: 1.46 gram(approx.).



Maximum Ratings (At Ta=25°C, unless otherwise noted)

| Parameter | Symbol | CDBD 8060-HF | CDBD 8100-HF | Unit |
|--|-----------------|--------------|--------------|------|
| Maximum Recurrent peak reverse voltage | V_{RRM} | 60 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 42 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 60 | 100 | V |
| Forward rectified current (See fig. 1) | I_o | 8.0 | | A |
| Maximum forward voltage at I_o | V_F | 0.75 | 0.85 | V |
| Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 175 | | A |
| Maximum Reverse current at 25°C per leg (Note1) | I_R | 5.0 | | mA |
| Maximum Reverse current at 100°C per leg (Note1) | I_R | 50 | | mA |
| Typical Thermal resistance junction to case Per Leg | $R_{\theta JC}$ | 4.0 | | °C/W |
| Operating temperature range | T_J | -55 to +150 | | °C |
| Storage temperature range | T_{STG} | -55 to +150 | | °C |

Notes: 1. Pulse Test: 300µs pulse width, 1% duty cycle.

RATING AND CHARACTERISTIC CURVES (CDBD8060-HF Thru. CDBD8100-HF)

FIG.1- Forward Derating Curve

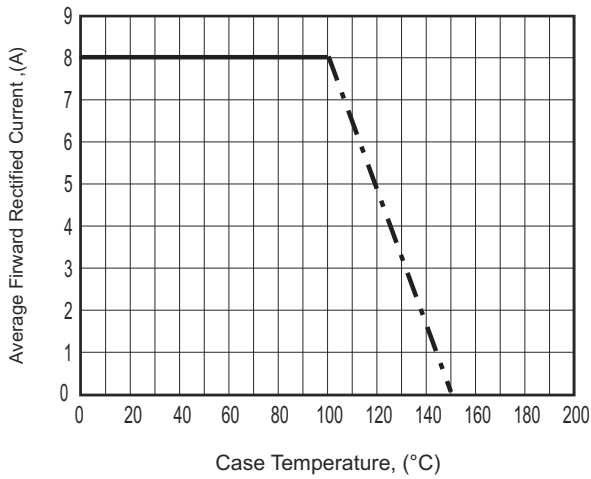


FIG.2-Peak Forward Surge Current

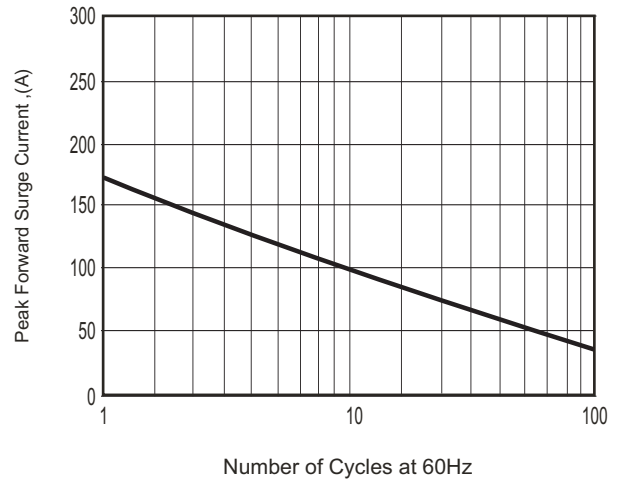


FIG.3 - Typical Forward Characteristic Per Leg

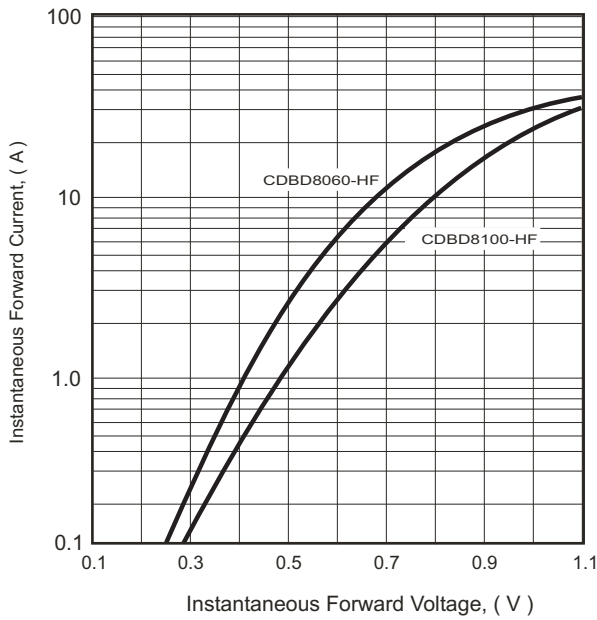
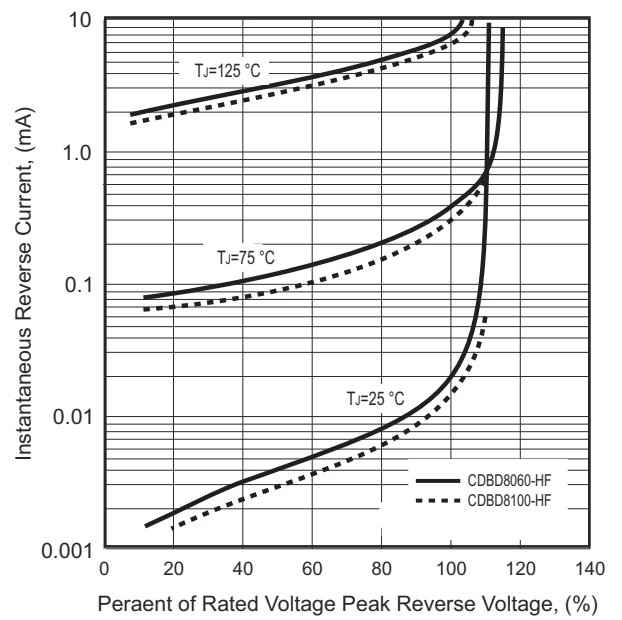
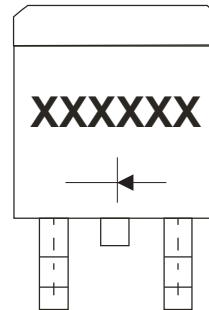


FIG.4-Typical Reverse Characteristics



Marking Code

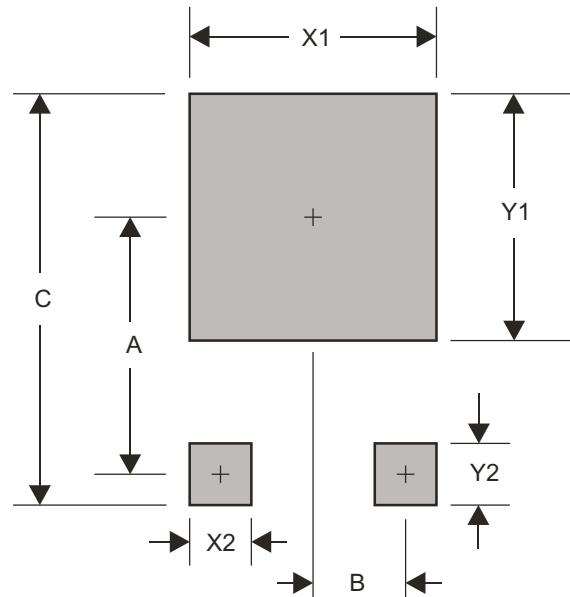
| Part Number | Marking Code |
|-------------|--------------|
| CDBD8060-HF | SD8L60 |
| CDBD8100-HF | SD8L100 |



XXXXXX / XXXXXXXX = Product type marking code

Suggested PAD Layout

| SIZE | TO-263 / D2PAK | |
|------|----------------|--------|
| | (mm) | (inch) |
| A | 9.50 | 0.374 |
| B | 2.50 | 0.098 |
| C | 16.90 | 0.665 |
| X1 | 10.80 | 0.425 |
| X2 | 1.10 | 0.043 |
| Y1 | 11.40 | 0.449 |
| Y2 | 3.50 | 0.138 |



Standard Packaging

| Case Type | TUBE PACK | |
|----------------|------------|-----------|
| | TUBE (pcs) | BOX (pcs) |
| TO-263 / D2PAK | 50 | 2,000 |