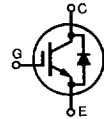


Discrete IGBT with Fast Diode

IGBT/Diode Combi-Pack

S series with SCSOA capability

Ultra High Speed
IGBTs = Suffix C



| V_{CES} min V | I_{CP25} A | V_{CESAT} max V | t_{tr} typ ns | TO-247(H) PLUS247™ (X) Case style | TO-268AA (T) ISOPLUS247™ (R) Case style | TO-264 (K) Case style | SOT-227B (N) Case style |
|-------------------------------------|-----------------|-------------------------|-----------------------|---|---|------------------------------|--------------------------------|
| LOW SATURATION VOLTAGE TYPES | | | | | | | |
| 600 | 48 | 2.0 | 170 | ▶ IXSH24N60BD1 | | | |
| | 50 | 2.5 | 400 | IXSH30N60U1* | | | |
| | 90 | 2.5 | 400 | | | | IXSN62N60U1 |
| 1000 | 34 | 3.5 | 1000 | | | | IXSN35N100U1* |
| HIGH SPEED | | | | | | | |
| 600 | 48 | 2.5 | 300 | IXSH24N60AU1 | | | |
| | 55 | 2.0 | 140 | IXSH30N60BD1 | IXST30N60BD1 | IXSK30N60BD1 | |
| | 55 | 2.5 | 70 | IXSH30N60CD1 | IXST30N60CD1 | IXSK30N60CD1 | |
| | 62 | 2.5 | 70 | | IXSR40N60CD1 | IXSK40N60CD1 | |
| | 70 | 2.2 | 120 | | IXSR40N60BD1 | IXSK40N60BD1 | |
| | 75 | 2.5 | 70 | IXSX40N60CD1 | | IXSK40N60CD1 | IXSN50N60BD2 IXSN50N60BD3 |
| | 75 | 2.2 | 120 | IXSX40N60BD1 | | IXSK40N60BD1 | |
| | 75 | 2.7 | 400 | | | IXSK50N60AU1* | |
| | 75 | 2.5 | 150 | IXSX50N60BD1 | | IXSK50N60BD1 | |
| | 75 | 2.5 | 150 | IXSX50N60BU1 | | IXSK50N60BU1 | |
| | 75 | 2.5 | 150 | | | | |
| 75 | 2.5 | 150 | | | | | |
| 80 | 2.0 | 200 | | | | IXSN52N60AU1* | |
| **100 | 2.5 | 180 | | | | IXSN80N60BD1 | |
| 1200 | 30 | 3.4 | 150 | IXSH15N120BD1 | IXST15N120BD1 | | |
| | 50 | 4.0 | 650 | IXSH25N120AU1* | | | |
| | 70 | 4.0 | 500 | IXSX35N120AU1* | IXSR35N120BD1 | IXSK35N120AU1* | IXSN35N120AU1* |
| | 70 | 3.6 | 180 | IXSX35N120BD1 | | IXSK35N120BD1 | |

* Not for new design ** Lead terminal current limited

IGBT/diode circuit connections

_U1 and _D1: Ultrafast FRED or HiPerFRED diode respectively connected in antiparallel to IGBT

_U2 and _D2: Ultrafast FRED or HiPerFRED diode anode connected to IGBT drain (boost configuration).

_U3 and _D3: Ultrafast FRED or HiPerFRED diode cathode connected to IGBT emitter (buck configuration).

Outline drawings on page 91-100.