

1 IGBT mold types

- High speed switching
- Voltage drive method permits low power drive
- Suited for high frequency power supplies, such as microwave ovens
- When using these IGBTs, FUJI's fast recovery diode ERD60-100 is required.
- Low saturation voltage

| Device type | V _{CE(s)} | V _{GES} | I _c | P _c | V _{CE(sat)} | Switching time (Max.) | | | Package | Net mass Grams |
|-------------|--------------------|------------------|----------------|----------------|----------------------|--------------------------|---------------------------|-------------------------|---------|-------------------|
| | Volts | Volts | cont. Amps | Watts | Max. Volts | t _{on} μsec. | t _{off} μsec. | t _r μsec. | | |
| 1MBH60-090 | 900 | ±20 | 60 | 260 | 3.2 | — | — | 1.0 | TO3PL | 9.5 |
| 1MBH60-100 | 1000 | ±20 | 60 | 260 | 3.4 | — | — | 1.0 | TO3PL | 9.5 |
| 1MBH65-090 | 900 | ±20 | 65 | 260 | 3.0 | — | — | 1.0 | TO3PL | 9.5 |
| 1MBH65-100 | 1000 | ±20 | 65 | 300 | 3.2 | — | — | 1.0 | TO3PL | 9.5 |

Fast recovery diode for IGBT

| Device type | V _{RRM} | I _F | P _c | I _r | V _r | t _r | R _{th(j-c)} | Package | Net mass Grams |
|-------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------------|---------|-------------------|
| | Volts | Amps | Watts | μA | Volts | μsec. | °C/W | | |
| ERD60-100 | 1000 | 15 | 40 | 100 | 2.5 | 3.0 | 3.1 | TO220AB | 2 |
| ERD65-090 | 900 | 30 | 50 | 100 | 1.4 | 4.4 | 2.5 | TO3PF | 6.0 |

2 600 volts class IGBT modules/High speed switching (L series)

- High speed switching
- Voltage drive method permits low power drive

| Device type | V _{CE(s)} | V _{GES} | I _c | P _c | V _{CE(sat)} | Switching time (Max.) | | | Package | Net mass Grams | Equivalent circuit Page 53 |
|---------------|--------------------|------------------|----------------|----------------|----------------------|--------------------------|---------------------------|-------------------------|---------|-------------------|-------------------------------|
| | Volts | Volts | cont. Amps | Watts | Max. Volts | t _{on} μsec. | t _{off} μsec. | t _r μsec. | | | |
| 2MBI50L-060 | 600 | ±20 | 50 | 250 | 3.5 | 0.8 | 1.0 | 0.35 | M218 | 210 | Fig. 2 |
| 2MBI75L-060 | 600 | ±20 | 75 | 325 | 3.5 | 0.8 | 1.0 | 0.35 | M218 | 210 | Fig. 2 |
| 2MBI100L-060 | 600 | ±20 | 100 | 400 | 3.5 | 0.8 | 1.0 | 0.35 | M218 | 210 | Fig. 2 |
| 2MBI150L-060 | 600 | ±20 | 150 | 600 | 3.5 | 0.8 | 1.0 | 0.35 | M219 | 340 | Fig. 2 |
| 2MBI150LB-060 | 600 | ±20 | 150 | 600 | 3.5 | 0.8 | 1.0 | 0.35 | M221 | 250 | Fig. 2 |
| 2MBI200L-060 | 600 | ±20 | 200 | 800 | 3.5 | 0.8 | 1.0 | 0.35 | M219 | 340 | Fig. 2 |
| 2MBI200LB-060 | 600 | ±20 | 200 | 800 | 3.5 | 0.8 | 1.0 | 0.35 | M221 | 250 | Fig. 2 |
| 2MBI300L-060 | 600 | ±20 | 300 | 1200 | 3.5 | 0.8 | 1.0 | 0.35 | M217 | 410 | Fig. 2 |
| 2MBI300LB-060 | 600 | ±20 | 300 | 1200 | 3.5 | 0.8 | 1.0 | 0.35 | M225 | 380 | Fig. 2 |
| 2MBI400L-060 | 600 | ±20 | 400 | 1600 | 3.5 | 0.8 | 1.0 | 0.35 | M225 | 380 | Fig. 2 |
| 1MBI300L-060 | 600 | ±20 | 300 | 1200 | 3.5 | 0.8 | 1.0 | 0.35 | M116 | 415 | Fig. 1 |
| 1MBI400L-060 | 600 | ±20 | 400 | 1600 | 3.5 | 0.8 | 1.0 | 0.35 | M116 | 415 | Fig. 1 |
| 1MBI600LP-060 | 600 | ±20 | 600 | 2000 | 3.5 | 1.0 | 1.2 | 0.5 | M121 | 370 | Fig. 1 |
| 1MBI600LN-060 | 600 | ±20 | 600 | 2000 | 3.5 | 1.0 | 1.2 | 0.5 | M122 | 370 | Fig. 1 |

Letter symbols

V_{CE(s)}: Collector-to-emitter rated voltage
(Gate-to-emitter short-circuited)

V_{GES}: Gate-to-emitter rated voltage
(Collector-to-emitter short-circuited)

I_c: Rated collector current

P_c: Maximum power dissipation

V_{CE(sat)}: Collector-to-emitter saturation voltage

t_{on}: Turn-on time

t_{off}: Turn-off time

t_r: Fall time