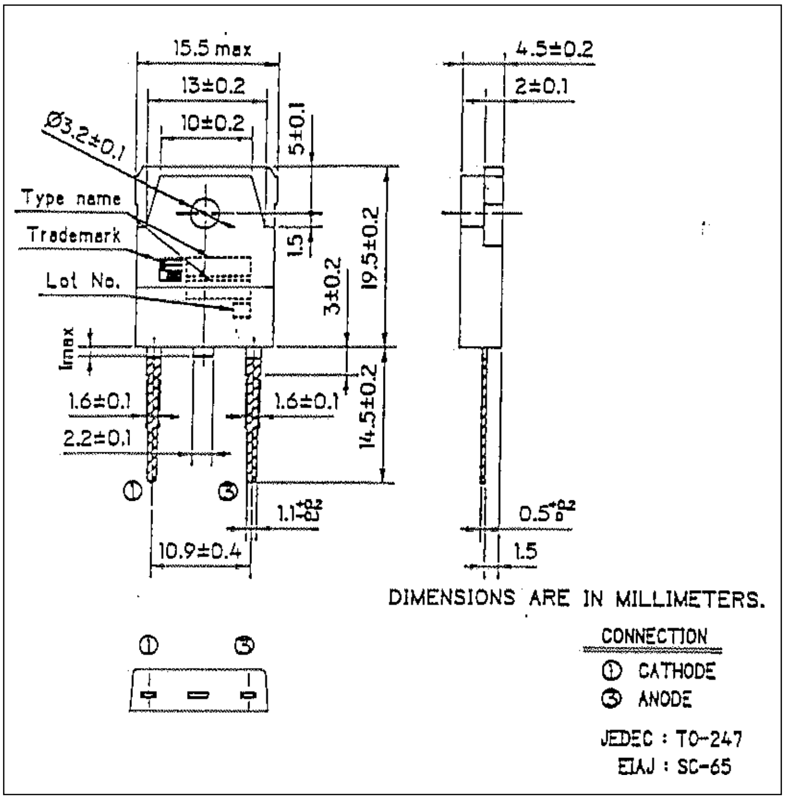
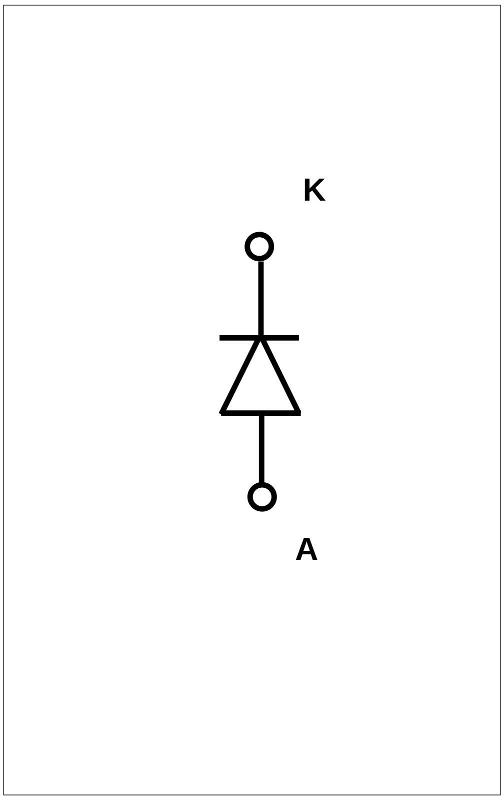
# ERW06-060(50A/600V)

## Fast Recovery Diode for IGBT

### ■ Outline Drawings Units mm



### ■ Equivalent circuit



## ■ Maximum ratings and characteristics

### ● Absolute maximum ratings (Tc=25°C)

| Item | Symbol | Test Conditions | | Ratings | Units |
|---|---|---|---|---|---|
| Repetitive Reverse Voltage | $V_{RRM}$ | | | 600 | V |
| Repetitive peak surge current | $I_{FM}$ | 20kHz Duty 50% Squ. wave | Tc=77°C | 50 | A |
| | | | Tc=25°C | 76 | A |
| Average rectiffied forward current | $I_{F(A)}$ | DC | | 45 | A |
| Non-repetitive peak surge current | $I_{FSM}$ | Pulse 10ms, sin. wave | | 125 | A |
| Maximam Power Dissipaion | $P_o$ | | | 110 | W |
| Operating Temperature | $T_j$ | | | +150 | ℃ |
| Storage Temperature | Tstg | | | -40 to +150 | ℃ |
| Mounting Screw Torque | | | | 50 | N·cm |

### ● Electrical characteristics (at Tc=25°C unless otherwise specified)

| Item | Symbol | Test Conditions | Max | Units |
|---|---|---|---|---|
| Reverse Current | $I_R$ | $V_R$ = 600V | 1.0 | mA |
| Foward voltage | $V_{FM}$ | $I_F$ = 50A | 3.0 | V |
| Reverse recovery time | $t_{rr}$ | $I_F$ = 50A,VR=200V, di/dt=100A/µs | 0.3 | µs |

### ● Thermal resistance characteristics

| Item | Symbol | Test Conditions | Max | Units |
|---|---|---|---|---|
| Thermal resistance | $R_{th(j-c)}$ | junction to case | 1.14 | °C/W |

## ■ Characteristics