

# MA3D750, MA3D750A

Silicon epitaxial planar type (cathode common)

For switching power supply

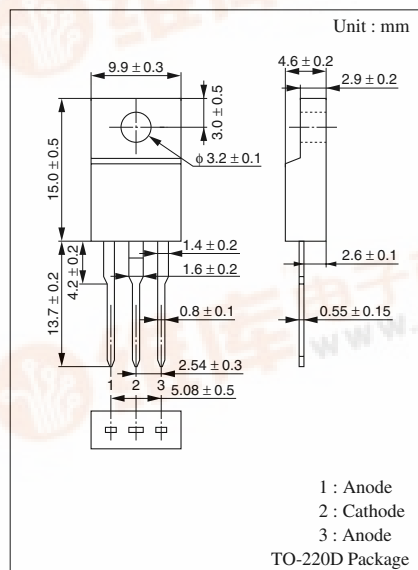
## ■ Features

- Low forward rise voltage  $V_F$
- TO-220D (Full-pack package) with high dielectric breakdown voltage  $> 5.0$  kV
- Easy-to-mount, caused by its V cut lead end

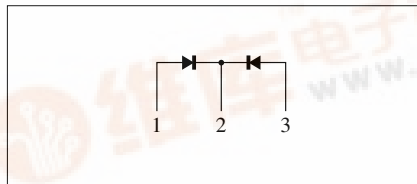
## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                  |          | Symbol      | Rating      | Unit |
|--------------------------------------------|----------|-------------|-------------|------|
| Repetitive peak reverse voltage            | MA3D750  | $V_{RRM}$   | 40          | V    |
|                                            | MA3D750A |             | 45          |      |
| Average forward current                    |          | $I_{F(AV)}$ | 10          | A    |
| Non-repetitive peak forward surge current* |          | $I_{FSM}$   | 120         | A    |
| Junction temperature                       |          | $T_j$       | -40 to +125 | °C   |
| Storage temperature                        |          | $T_{stg}$   | -40 to +125 | °C   |

Note) \* : Half sine-wave; 10 ms/cycle



## Internal Connection



## ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter            | Symbol        | Conditions                                 | Min | Typ | Max  | Unit               |
|----------------------|---------------|--------------------------------------------|-----|-----|------|--------------------|
| Reverse current (DC) | MA3D750       | $V_R = 40$ V, $T_C = 25^\circ\text{C}$     |     |     | 3    | mA                 |
|                      | MA3D750A      | $V_R = 45$ V, $T_C = 25^\circ\text{C}$     |     |     | 3    |                    |
| Forward voltage (DC) | $V_F$         | $I_F = 5$ A, $T_C = 25^\circ\text{C}$      |     |     | 0.55 | V                  |
| Thermal resistance   | $R_{th(j-c)}$ | Direct current (between junction and case) |     |     | 3    | $^\circ\text{C/W}$ |

Note) Rated input/output frequency: 150 MHz

