

# MA3D750, MA3D750A (MA7D50, MA7D50A)

Silicon epitaxial planar type (cathode common)

For switching mode power supply

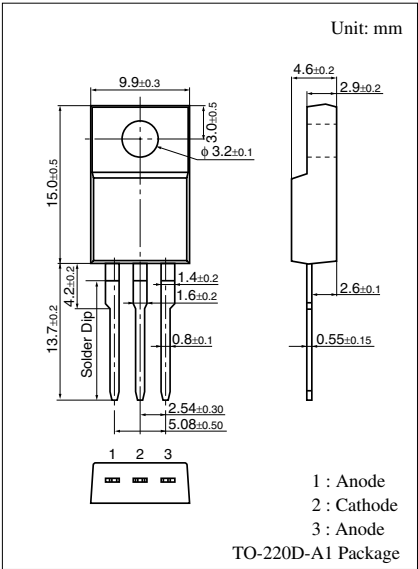
## ■ Features

- Low forward voltage  $V_F$
- High dielectric breakdown voltage: > 5 kV
- Easy-to-mount, due to its V cut lead end
- TO-220D-A1 package

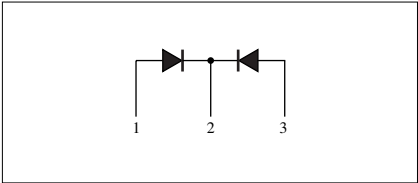
## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                   | Symbol      | Rating      | Unit             |
|---------------------------------------------|-------------|-------------|------------------|
| Repetitive peak reverse-voltage             | $V_{RRM}$   | 40          | V                |
|                                             |             | 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 | $^\circ\text{C}$ |
| Storage temperature                         | $T_{stg}$   | -40 to +125 | $^\circ\text{C}$ |

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



## Internal Connection

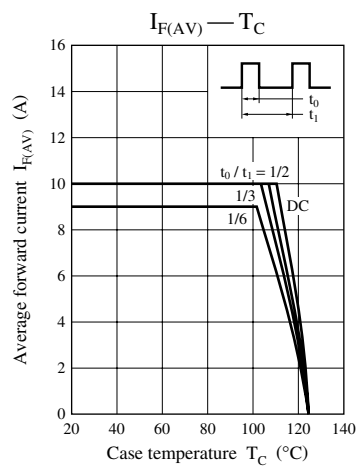
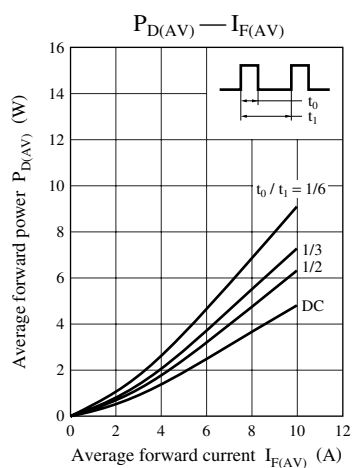
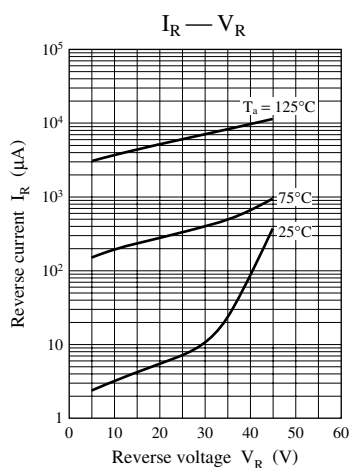
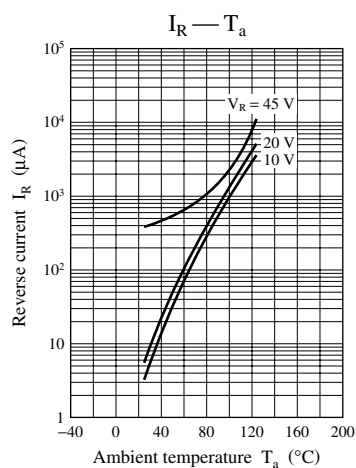
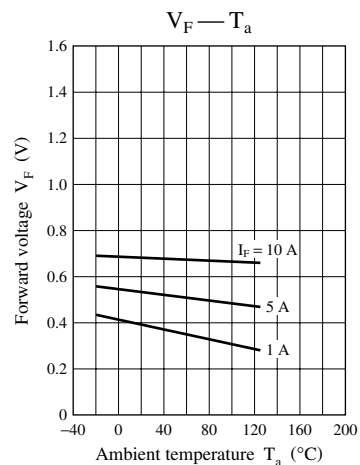
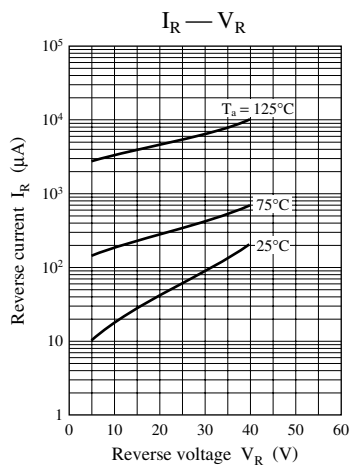
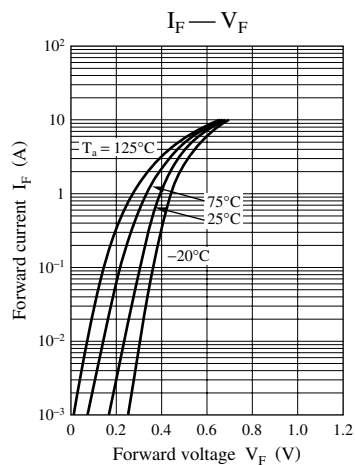


## ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

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

Note) Rated input/output frequency: 150 MHz

Note) The part number in the parenthesis shows conventional part number.



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