

MA3D749, MA3D749A

Silicon epitaxial planar type (cathode common)

For switching power supply

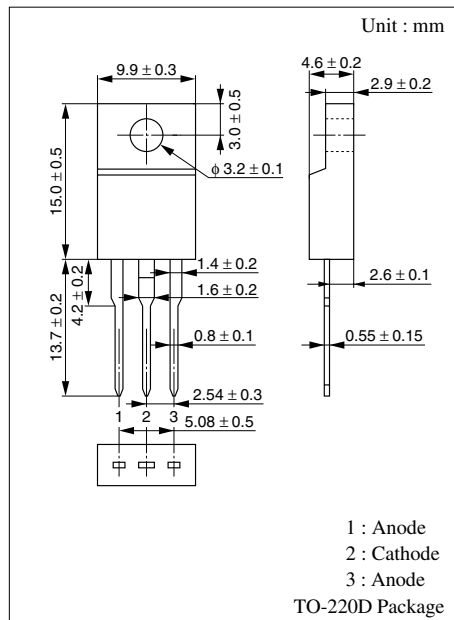
■ Features

- 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

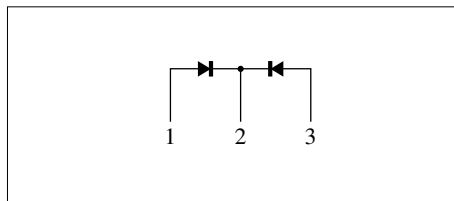
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	MA3D749 MA3D749A	V_{RRM} 40 45	V
Average forward current	$I_{F(AV)}$	5	A
Non-repetitive peak forward surge current*	I_{FSM}	90	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)	MA3D749	$V_R = 40\text{ V}, T_C = 25^\circ\text{C}$			1	mA
	MA3D749A	$V_R = 45\text{ V}, T_C = 25^\circ\text{C}$			1	
Forward voltage (DC)	V_F	$I_F = 2.5\text{ A}, T_C = 25^\circ\text{C}$			0.55	V
Thermal resistance	$R_{th(j-c)}$	Direct current (between junction and case)			3	$^\circ\text{C}/\text{W}$

Note) Rated input/output frequency: 200 MHz

