

MA3D649

Silicon planar type (cathode common)

For high-frequency rectification

Features

- Low forward rise voltage V_F
- Fast reverse recovery time t_{rr}
- 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	V_{RRM}	200	V
Non-repetitive peak reverse surge voltage	V_{RSM}	200	V
Average forward current	$I_{F(AV)}$	5	A
Non-repetitive peak forward surge current*	I_{FSM}	30	A
Junction temperature	T_j	-40 to +150	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

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

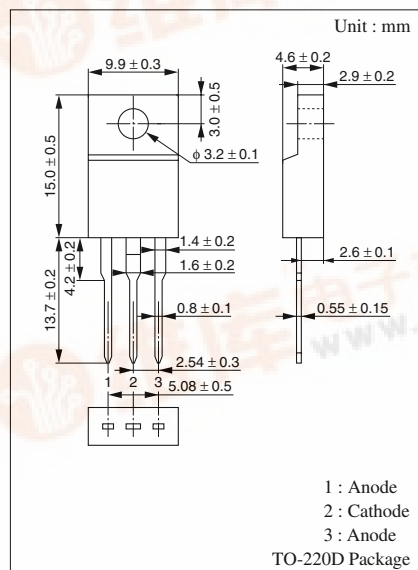
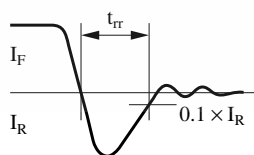
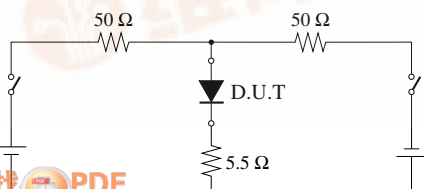
Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM} = 200\text{ V}, T_C = 25^\circ\text{C}$			20	μA
	I_{RRM2}	$V_{RRM} = 200\text{ V}, T_j = 150^\circ\text{C}$			2	mA
Forward voltage (DC)	V_F	$I_F = 2.5\text{ A}, T_C = 25^\circ\text{C}$			0.98	V
Reverse recovery time*	t_{rr}	$I_F = 1\text{ A}, I_R = 1\text{ A}$			30	ns
Thermal resistance	$R_{th(j-c)}$				3	$^\circ\text{C/W}$
	$R_{th(j-a)}$				63	$^\circ\text{C/W}$

Note) 1. Rated input/output frequency: 10 MHz

2. Tightening torque-max. $8\text{ kg} \times \text{cm}$

3. *: t_{rr} measuring circuit



Internal Connection

