

MA689

Silicon planer type

For switching

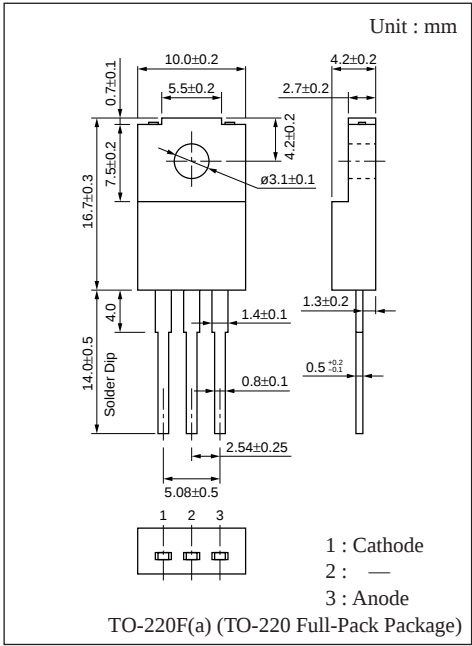
■ Features

- High reverse voltage V_R
- Low forward voltage V_F
- Fast reverse recovery time t_{rr}

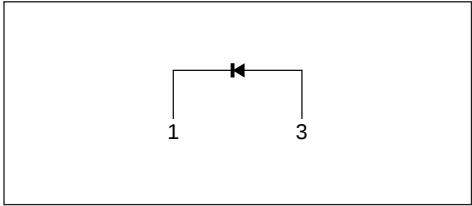
■ Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	200	V
Non-repetitive peak reverse voltage	V_{RSM}	200	V
Peak forward current	I_{FM}	5	A
Average forward current	$I_{F(AV)}$	2.5	A
Non-repetitive peak forward surge current	I_{FSM}^*	20	A
Junction temperature	T_j	- 40 to +150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	- 40 to +150	$^{\circ}\text{C}$

* Sine half wave : 10ms/cycle



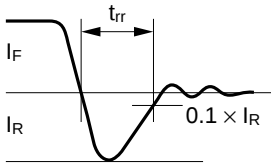
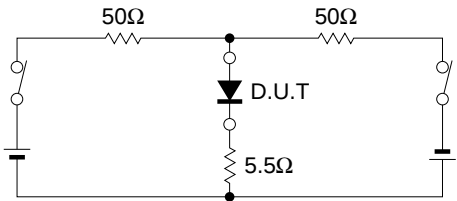
■ Internal Connection

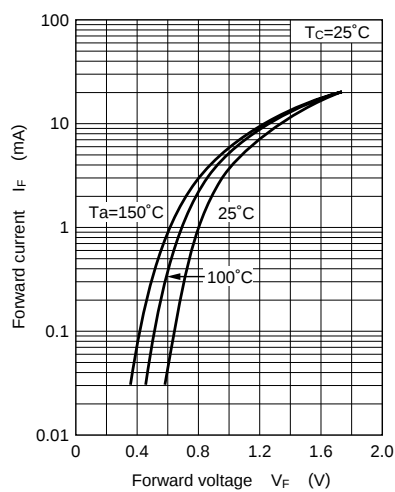
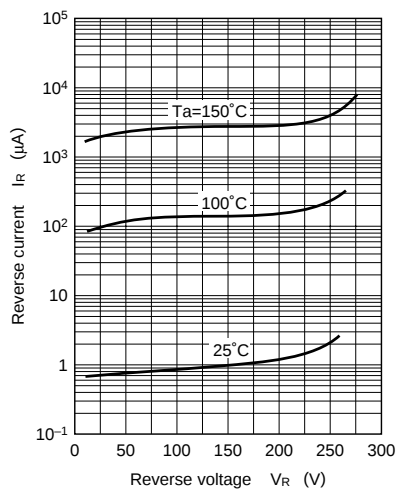
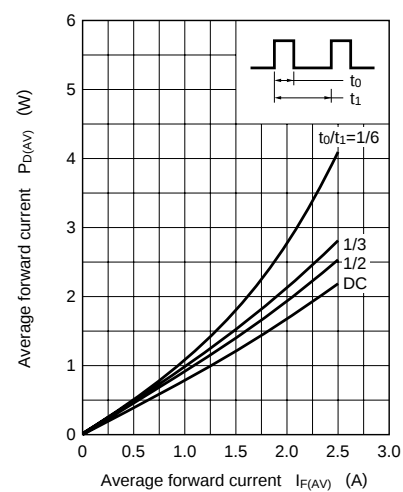
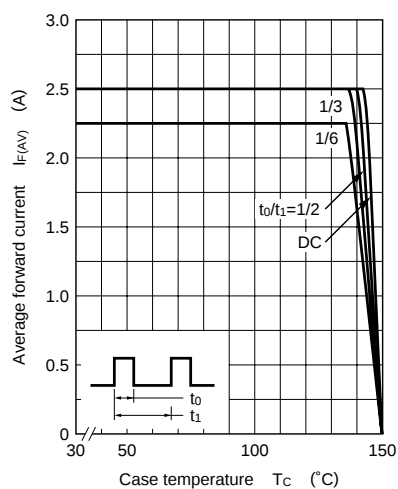


■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM}=200\text{V}, T_C=25^{\circ}\text{C}$			100	μA
	I_{RRM2}	$V_{RRM}=200\text{V}, T_j=150^{\circ}\text{C}$			6	mA
Forward voltage (DC)	V_F	$I_F=2.5\text{A}, T_C=25^{\circ}\text{C}$			1	V
Reverse recovery time	t_{rr}^*	$I_F=1\text{A}, I_R=1\text{A}$			100	ns
Thermal resistance	$R_{th(j-c)}$	Flat direct current between junction and case			4	$^{\circ}\text{C/W}$
	$R_{th(j-a)}$				63	$^{\circ}\text{C/W}$

Note 1. Rated input/output frequency : 10MHz
2. * t_{rr} measuring circuit



$I_F - V_F$  $I_R - V_R$  $P_{D(AV)} - I_{F(AV)}$  $I_{F(AV)} - T_C$  $R_{th(t)} - t$ 