

MA689

Silicon planer type

For switching

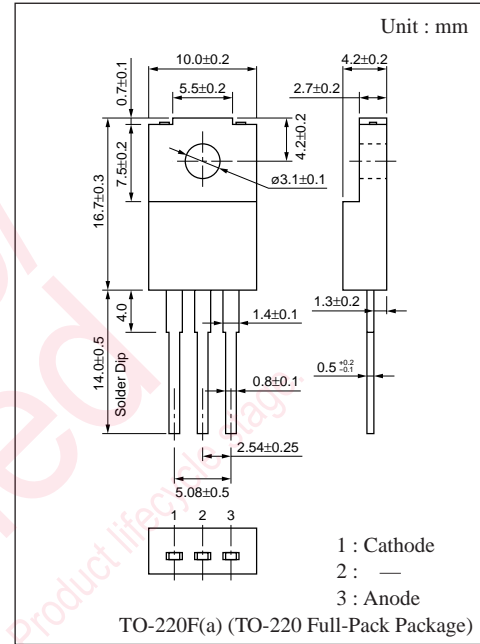
■ Features

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

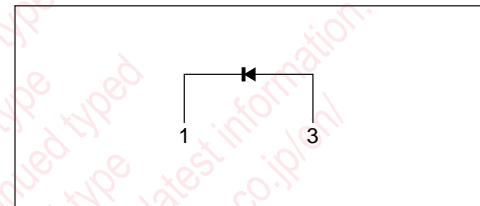
■ Absolute Maximum Ratings (Ta= 25°C)

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	°C
Storage temperature	T_{stg}	- 40 to +150	°C

* Sine half wave : 10ms/cycle



■ Internal Connection

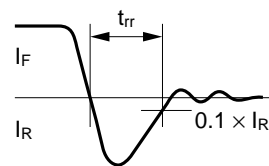
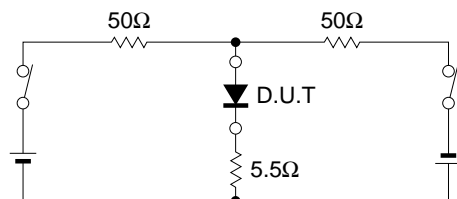


■ Electrical Characteristics (Ta= 25°C)

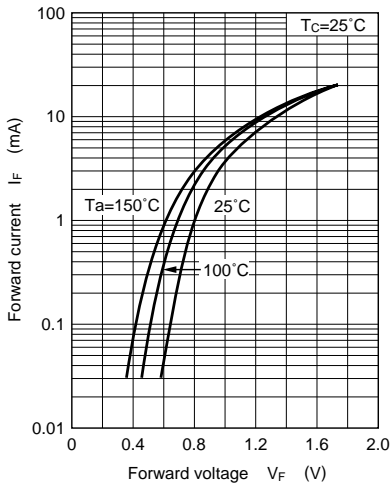
Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM}= 200V, T_C= 25^\circ C$			100	μA
	I_{RRM2}	$V_{RRM}= 200V, T_j= 150^\circ C$			6	mA
Forward voltage (DC)	V_F	$I_F= 2.5A, T_C= 25^\circ C$			1	V
Reverse recovery time	t_{rr}^*	$I_F= 1A, I_R= 1A$			100	ns
Thermal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

Note 1. Rated input/output frequency : 10MHz

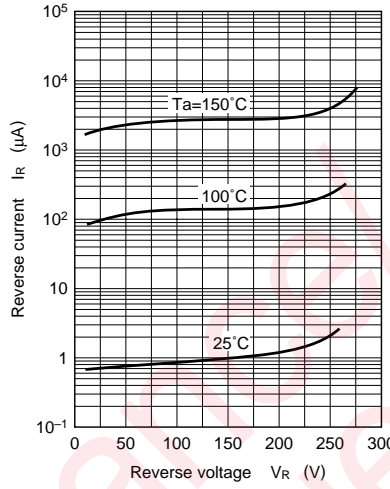
2. * t_{rr} measuring circuit



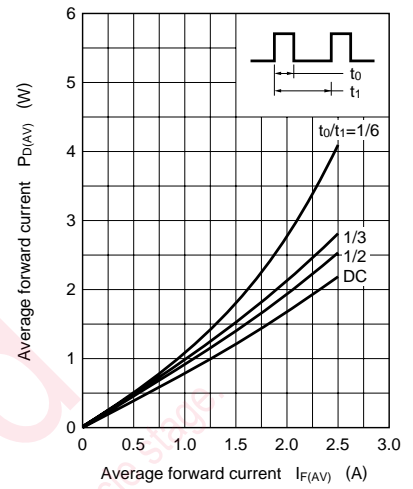
$I_F - V_F$



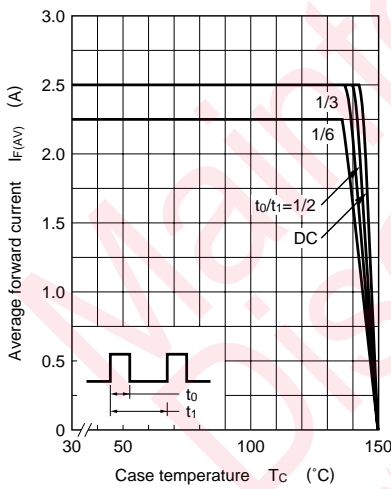
$I_R - V_R$



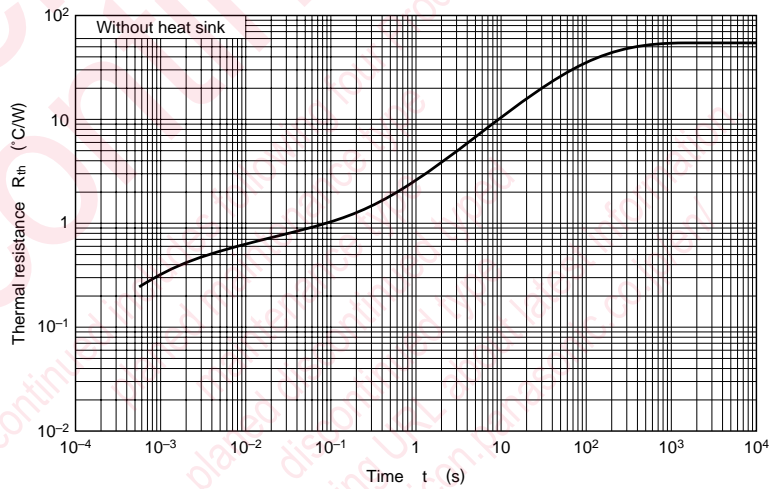
$P_{D(AV)} - I_{F(AV)}$



$I_{F(AV)} - T_C$



$R_{th(t)} - t$



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