

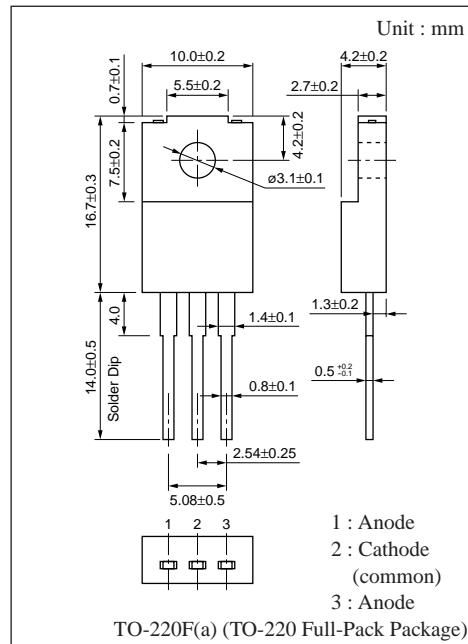
MA649

Silicon planer type (cathode common)

For switching

■ Features

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

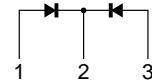


■ Absolute Maximum Ratings ($T_a = 25^\circ C$)

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	200	V
Non-repetitive peak reverse 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	°C
Storage temperature	T_{stg}	-40 to +150	°C

* Sine half wave : 10ms/cycle

■ Internal Connection



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

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			3	$^\circ C/W$
	$R_{th(j-a)}$				63	$^\circ C/W$

Note 1. Rated input/output frequency : 10MHz

2. * t_{rr} measuring circuit

