# **MA654**

# Silicon planer type (cathode common)

## For switching

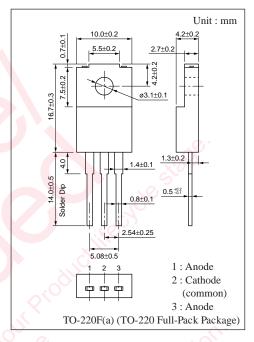
#### ■ Features

- High reverse voltage V<sub>R</sub>
- Low forward voltage V<sub>F</sub>
- Fast reverse recovery time t<sub>rr</sub>

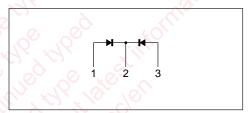
### ■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit	
Repetitive peak reverse voltage	V <sub>RRM</sub>	300	V	
Non-repetitive peak reverse voltage	V <sub>RSM</sub>	300	V	
Average forward current	I <sub>F(AV)</sub>	10	A	
Non-repetitive peak forward surge current	I <sub>FSM</sub> *	60	A	
Junction temperature	Tj	- 40 to +150	°C	
Storage temperature	T <sub>stg</sub>	- 40 to +150	°C	

<sup>\*</sup> Sine half wave : 10ms/cycle



#### ■ Internal Connection

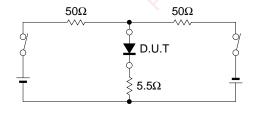


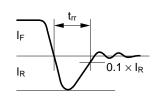
### ■ Electrical Characteristics (Ta= 25°C)

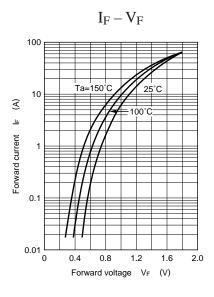
Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current $I_{RRM1}$ $I_{RRM2}$	$I_{RRM1}$	$V_{RRM} = 300V, T_{C} = 25^{\circ}C$	5		100	μΑ
	$I_{RRM2}$	V <sub>RRM</sub> = 300V, T <sub>j</sub> =150°C	0		6	mA
Forward voltage (DC)	$V_{\mathrm{F}}$	I <sub>F</sub> = 5A, T <sub>C</sub> = 25°C			1	V
Reverse recovery time	t <sub>rr</sub> *	I <sub>F</sub> =1A, I <sub>R</sub> =1A			100	ns
Thermal resistance $ \frac{R_{th(j-c)}}{R_{th(j-a)}} $	Flat 1:			3	°C/W	
	Flat direct current between junction and case			63	°C/W	

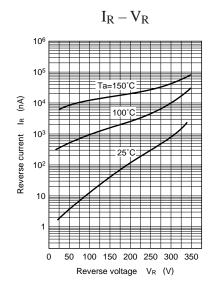
Note 1. Rated input/output frequency: 10MHz

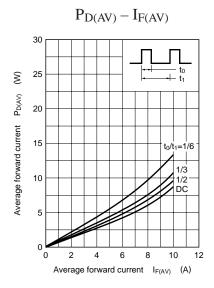
2. \* t<sub>rr</sub> measuring circuit

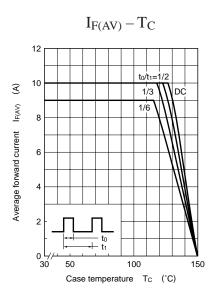


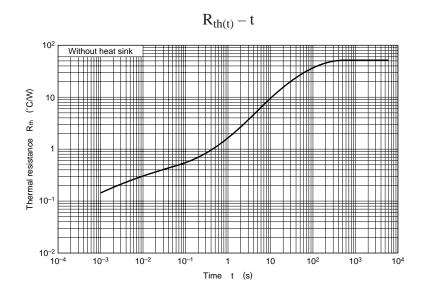












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