

MA3G655 (MA655)

Silicon planar type (cathode common)

For switching circuits

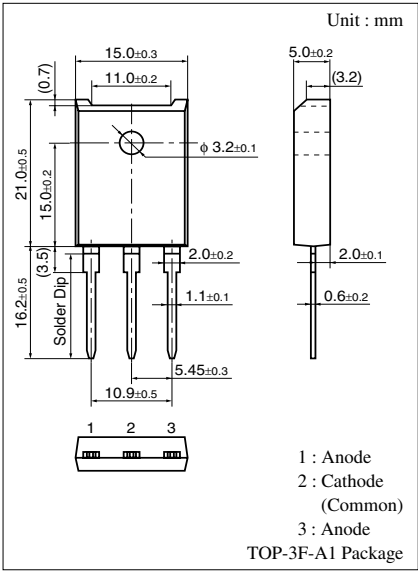
Features

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

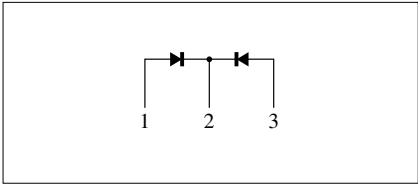
Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	300	V
Non-repetitive peak reverse surge voltage	V_{RSM}	300	V
Average forward current	$I_{F(AV)}$	20	A
Non-repetitive peak forward surge current*	I_{FSM}	150	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



Internal Connection

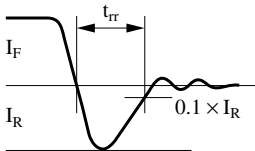
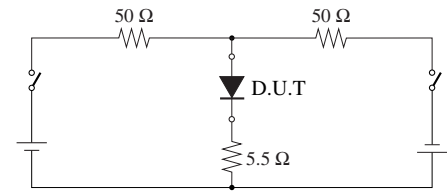


Electrical Characteristics $T_a = 25^{\circ}\text{C}$

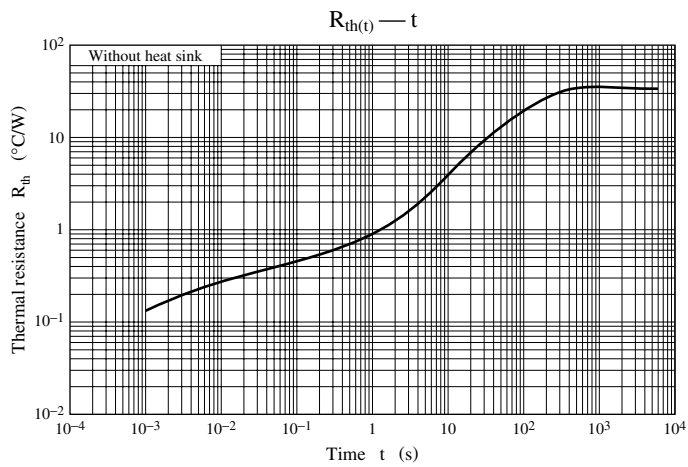
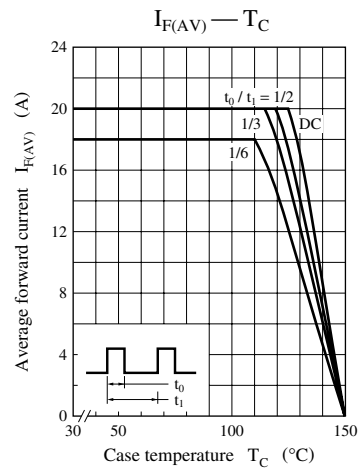
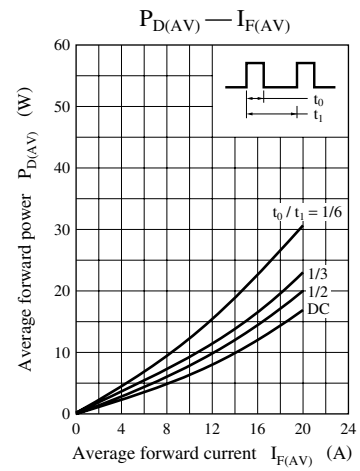
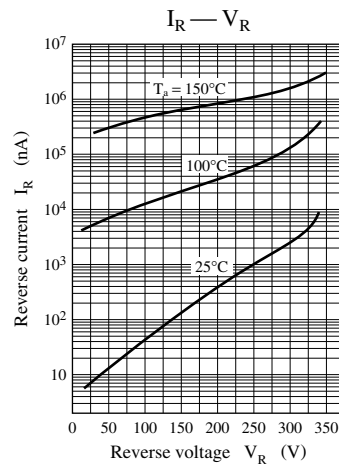
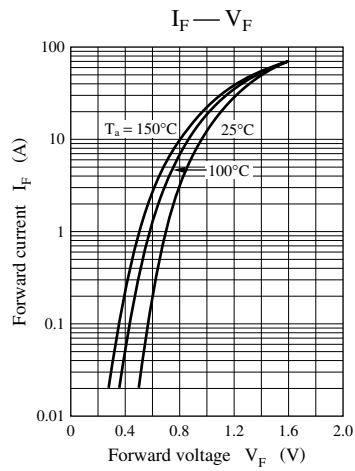
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM} = 300\text{ V}, T_C = 25^{\circ}\text{C}$			20	μA
	I_{RRM2}	$V_{RRM} = 300\text{ V}, T_j = 150^{\circ}\text{C}$			5	mA
Forward voltage (DC)	V_F	$I_F = 10\text{ A}, T_C = 25^{\circ}\text{C}$			1	V
Reverse recovery time*	t_{rr}	$I_F = 1\text{ A}, I_R = 1\text{ A}$			50	ns
Thermal resistance	$R_{th(j-c)}$	Direct current (between junction and case)			1.5	$^{\circ}\text{C/W}$
	$R_{th(j-a)}$				40	$^{\circ}\text{C/W}$

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

2. * : t_{rr} measuring circuit



Note) The part number in the parenthesis shows conventional part number.



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