MA695

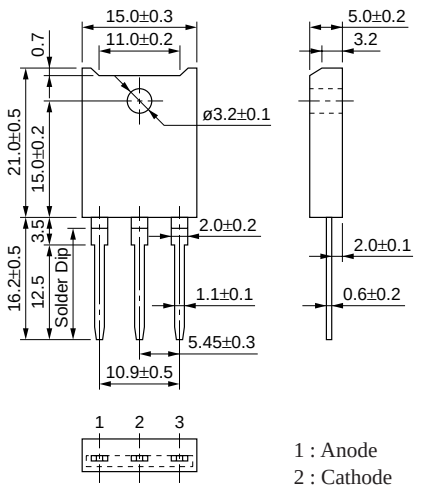
Silicon planer type (cathode common)

For high-frequency rectification

■ Features

- Cathode common dual type
- High reverse voltage V_R
- Low forward voltage V_F
- Fast reverse recovery time t_{rr}

Unit : mm



1 : Anode
2 : Cathode (Common)
3 : Anode

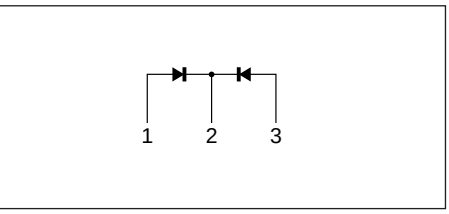
TOP-3F(a)(TOP-3 Full-Pack Package)

■ Absolute Maximum Ratings (Ta= 25˚C)

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	400	V
Non-repetitive peak reverse voltage	V_{RSM}	400	V
Average forward current	$I_{F(AV)}$	20	A
Non-repetitive peak forward surge current	I_{FSM}*	120	A
Junction temperature	T_j	– 40 to +150	˚C
Storage temperature	T_{stg}	– 40 to +150	˚C

* Sine half wave : 10ms/cycle

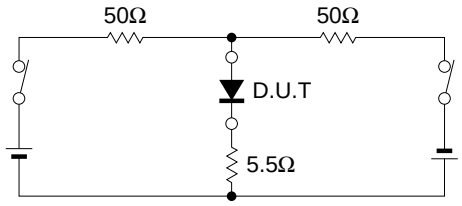
■ Internal Connection

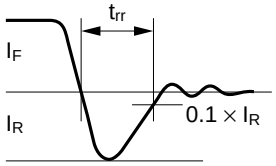


■ Electrical Characteristics (Ta= 25˚C)

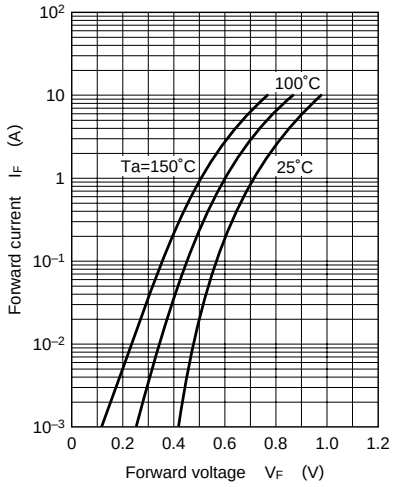
Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current	I_{RRM1}	V_{RRM}= 400V, T_C= 25˚C			50	µA
	I_{RRM2}	V_{RRM}= 400V, T_j=150˚C			10	mA
Forward voltage (DC)	V_F	I_F=10A, T_C= 25˚C			1	V
Reverse recovery time	t_{rr}*	I_F=1A, I_R=1A			100	ns
Thermal resistance	$R_{th(j-c)}$	Flat direct current between junction and case			1.5	˚C/W
	$R_{th(j-a)}$				41.6	˚C/W

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

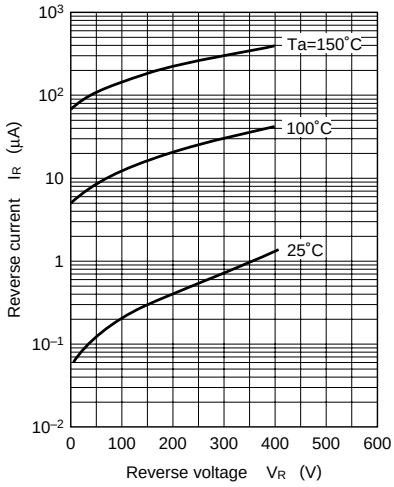




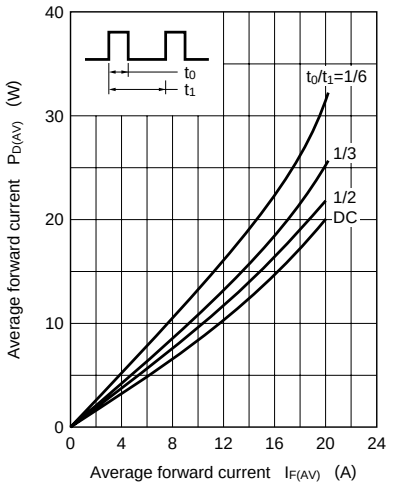
$I_F - V_F$



$I_R - V_R$



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



$I_{F(AV)} - T_C$