

MA6D54

Silicon planer type (cathode common)

For high-frequency rectification

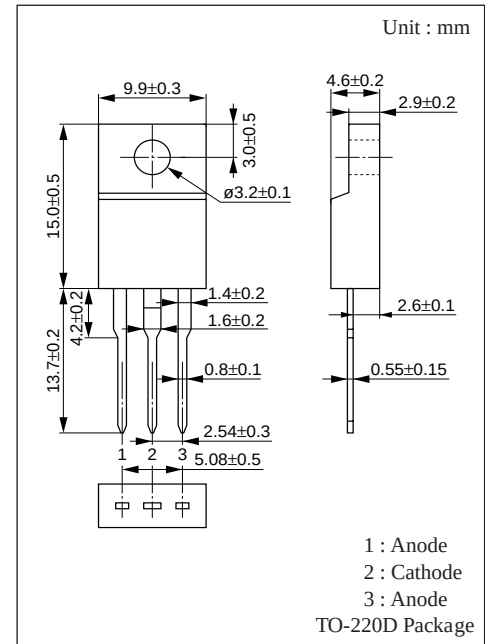
■ Features

- Low forward voltage V_F
- Fast reverse recovery time t_{rr}
- TO-220D (full-pack package) with high dielectric strength > 5.0kV
- Lead end to be V cut for easy mounting

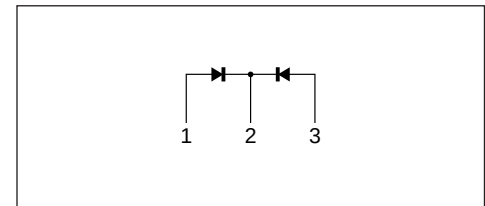
■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	300	V
Non-repetitive peak reverse voltage	V_{RSM}	300	V
Average forward current	$I_{F(AV)}$	10	A
Non-repetitive peak forward surge current	I_{FSM}^*	60	A
Junction temperature	T_j	- 40 to +150	°C
Storage temperature	T_{stg}	- 40 to +150	°C

* Sine half wave : 10ms/cycle



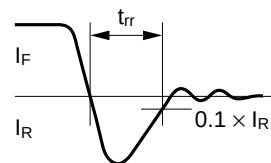
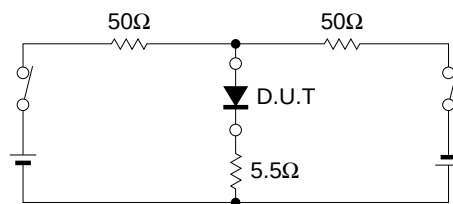
■ Internal Connection

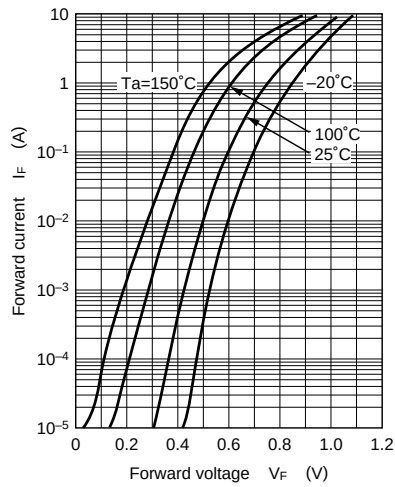
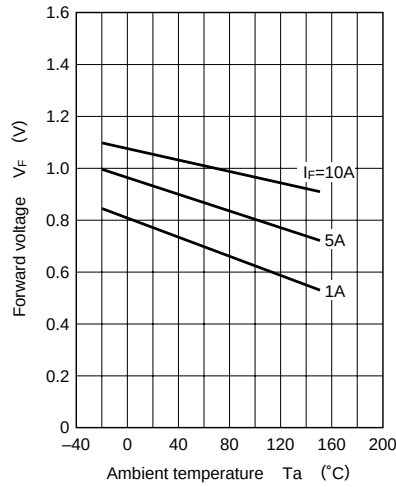
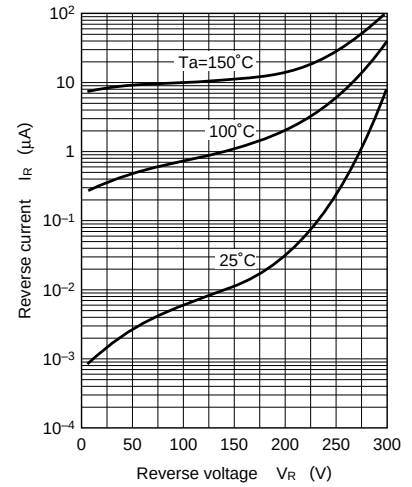
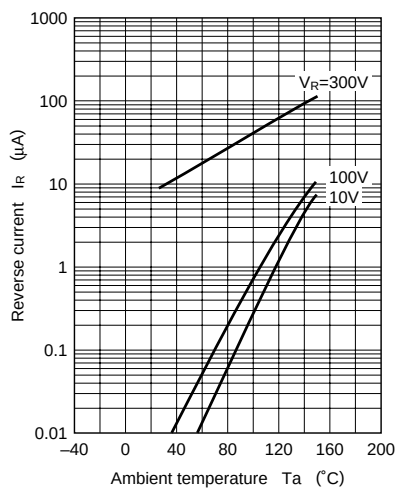
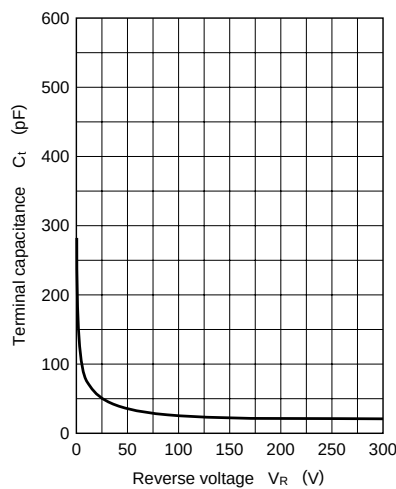
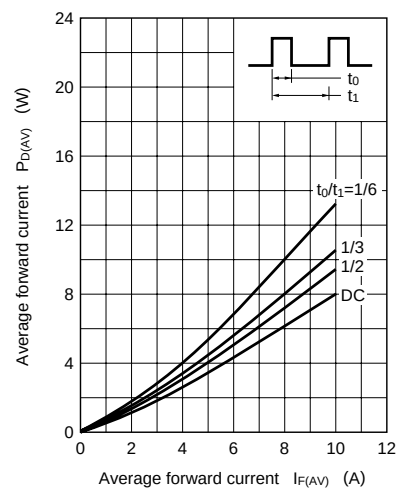


■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM}= 300V, T_C= 25^{\circ}C$			20	μA
	I_{RRM2}	$V_{RRM}= 300V, T_j=150^{\circ}C$			2	mA
Forward voltage (DC)	V_F	$I_F= 5A, T_C= 25^{\circ}C$			0.98	V
Reverse recovery time	t_{rr}^*	$I_F=1A, I_R=1A$			50	ns
Thermal resistance	$R_{th(j-c)}$				3	°C/W
	$R_{th(j-a)}$				63	°C/W

- Note
1. Rated input/output frequency : 10MHz
 2. Tightening torque-max 8kg/cm
 3. * t_{rr} measuring circuit



$I_F - V_F$  $V_F - T_a$  $I_R - V_R$  $I_R - T_a$  $C_t - V_R$  $P_{D(AV)} - I_{F(AV)}$  $I_{F(AV)} - T_C$ 