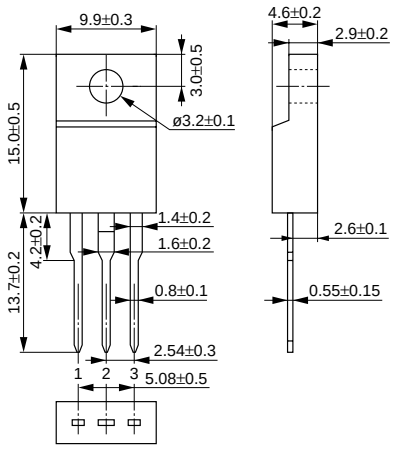
MA6D90

Silicon planer type

For high-frequency rectification

Unit : mm

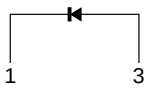


1 : Cathode
3 : Anode
TO-220D Package

■ 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

■ Internal Connection



■ Absolute Maximum Ratings (Ta= 25˚C)

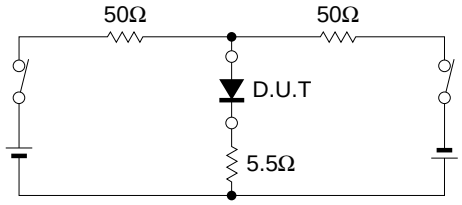
Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	200	V
Non-repetitive peak reverse voltage	V_{RSM}	200	V
Average forward current	$I_{F(AV)}$	5	A
Non-repetitive peak forward surge current	I_{FSM}*	30	A
Junction temperature	T_j	– 40 to +150	˚C
Storage temperature	T_{stg}	– 40 to +150	˚C

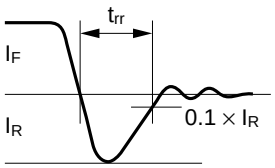
* Sine half wave : 10ms/cycle

■ Electrical Characteristics (Ta= 25˚C)

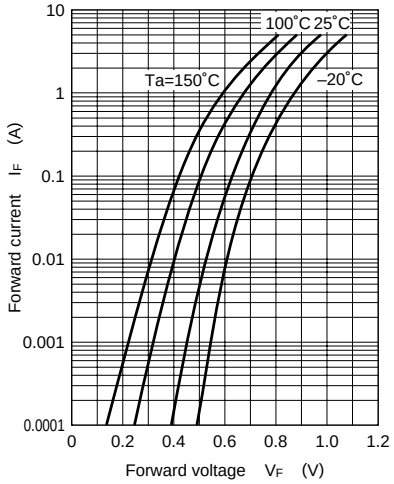
Parameter	Symbol	Condition	min	typ	max	Unit
Repetitive peak reverse current	I_{RRM1}	V_{RRM}= 200V, T_C= 25˚C			20	µA
	I_{RRM2}	V_{RRM}= 200V, T_j=150˚C			2	mA
Forward voltage (DC)	V_F	I_F= 5A, T_C= 25˚C			0.98	V
Reverse recovery time	t_{rr}*	I_F=1A, I_R=1A			45	ns
Thermal resistance	$R_{th(j-c)}$				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

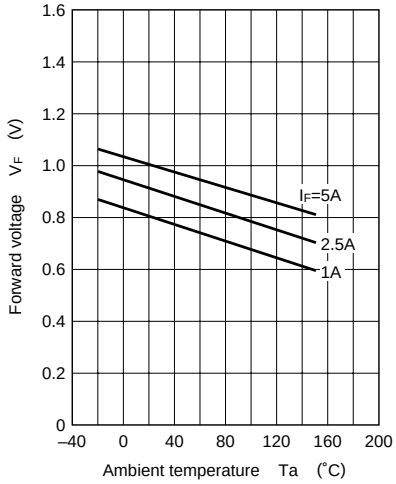




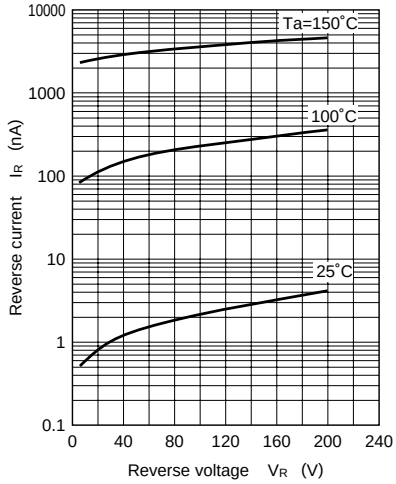
$I_F - V_F$



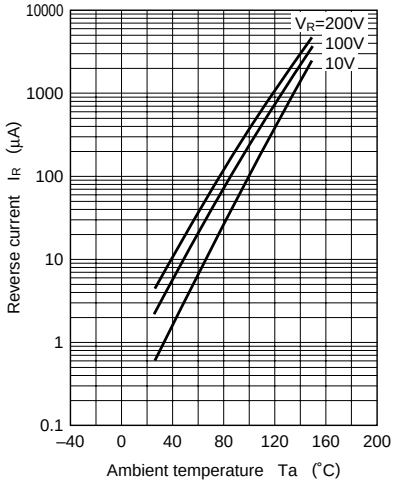
$V_F - Ta$



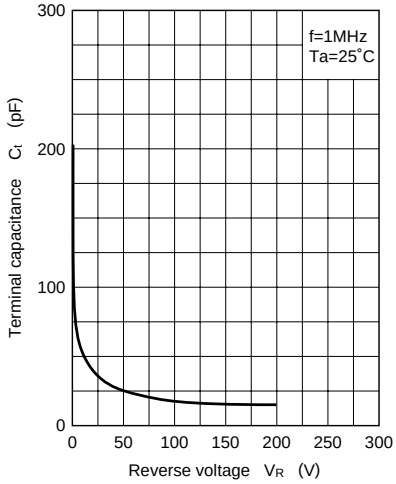
$I_R - V_R$



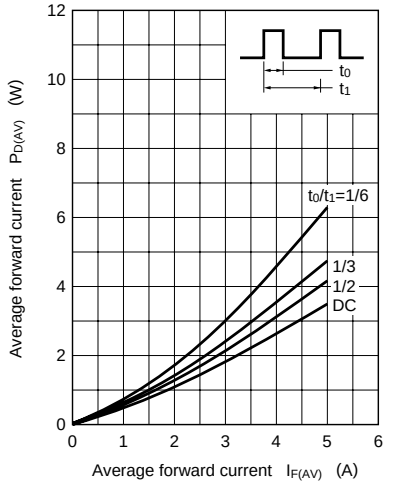
$I_R - Ta$



$C_t - V_R$



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



$I_{F(AV)} - T_C$