

MA3075WK

Silicon planer type

Constant voltage, constant current, waveform
cripper and surge absorption circuit

■ Features

- Mini type package (3-pin)
- Two cathode-common wiring of MA3075

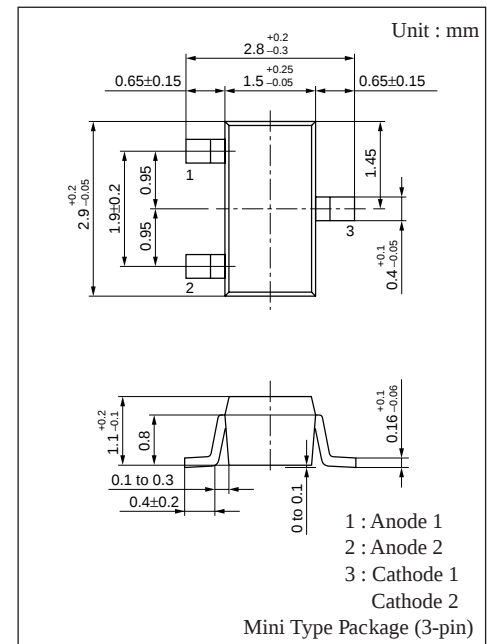
■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Average forward current	$I_{F(AV)}$	100 ^{*1}	mA
Instantious forward current	I_{FRM}	200 ^{*1}	mA
Total power dissipation	P_{tot} ^{*2}	100 ^{*1}	mW
Non-repetitive reverse power dissipation	P_{ZSM} ^{*3}	15	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 55 to + 150	°C

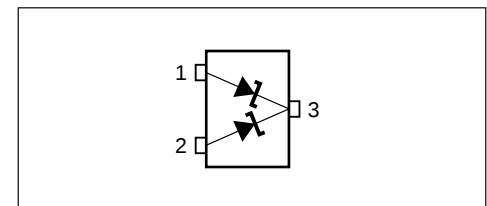
^{*1} Working value in a single piece

^{*2} With a printed-circuit board

^{*3} $t=100\mu s$, $T_j=150^\circ C$



■ Internal Connection



■ Electrical Characteristics (Ta= 25°C)^{*1}

Parameter	Symbol	Condition	min	typ	max	Unit
Forward voltage	V_F	$I_F=10mA$		0.8	0.9	V
Zener voltage	V_Z ^{*2}	$I_Z= 5mA$	7.0	7.5	7.9	V
Operating resistance	R_{ZK}	$I_Z= 0.5mA$			120	Ω
	R_Z	$I_Z= 5mA$		6	15	Ω
Reverse current	I_{R1}	$V_R= 5V$			1	μA
	I_{R2}	$V_R= 6.5V$			60	μA
Temperature coefficient of zener voltage	S_Z ^{*3}	$I_Z= 5mA$	2.5	4.0	5.3	mV/°C
Terminal capacitance	C_t	$V_R= 0V, f=1MHz$		80	100	pF

Note 1. Rated input/output frequency : 5MHz

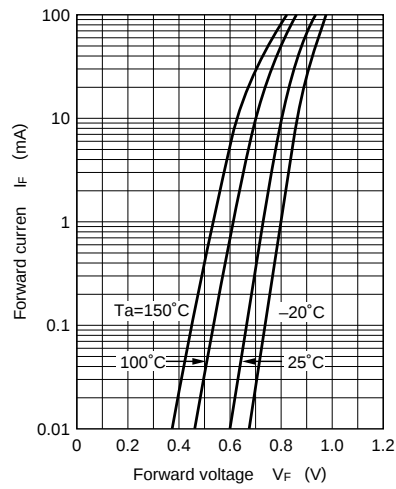
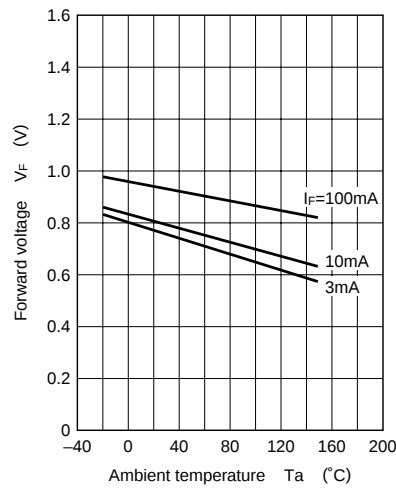
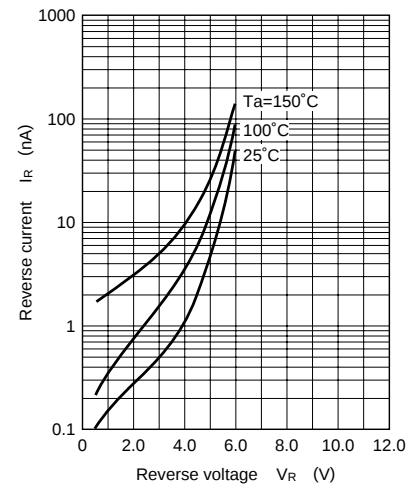
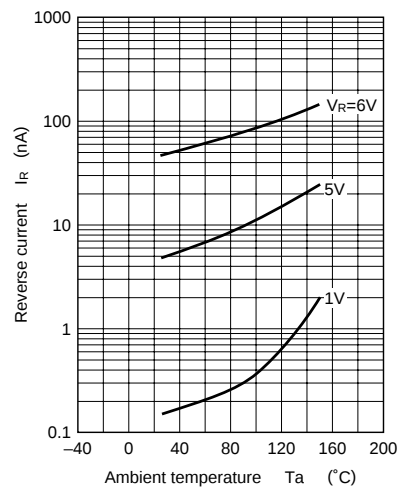
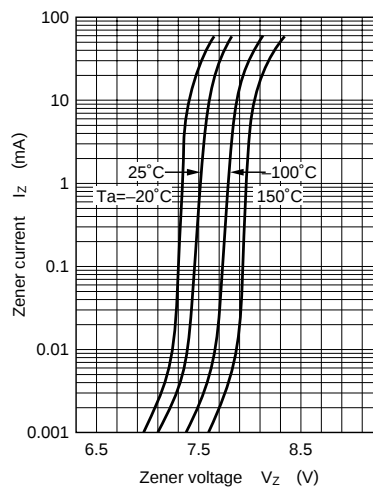
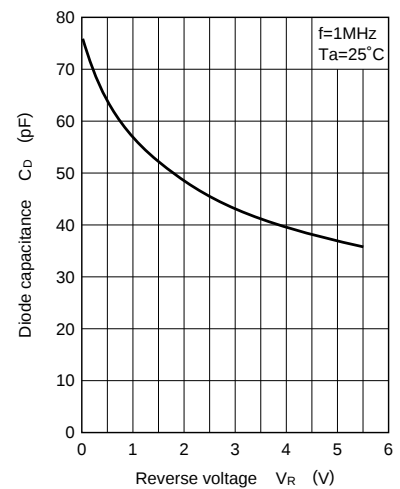
2. ^{*1} : The V_Z value is for the temperature of 25°C. In other cases, carry out the temperature compensation.

^{*2} : Guaranteed at 20ms after power application

^{*3} : $T_j= 25$ to $150^\circ C$

■ Marking



$I_F - V_F$  $V_F - T_a$  $I_R - V_R$  $I_R - T_a$  $I_Z - V_Z$  $C_D - V_R$  $R_Z - I_Z$ 