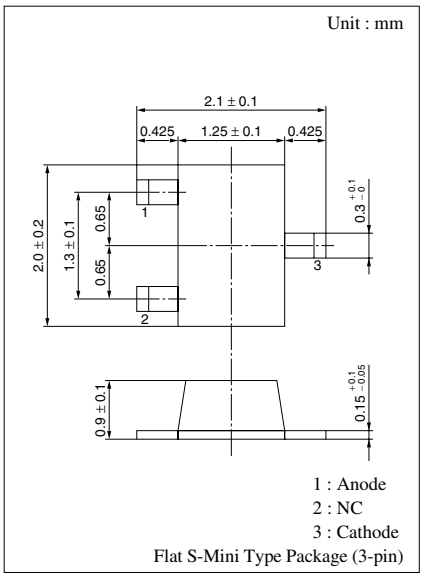
MA3ZD12

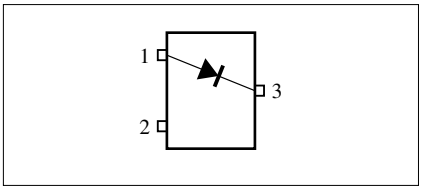
Silicon epitaxial planar type

For high-speed switching circuits



Marking Symbol: M5E

Internal Connection



■ Features

- S-mini type 3-pin package
- Allowing to rectify under ($I_{F(AV)}$ = 700 mA) condition
- Low forward rise voltage V_F (V_F < 0.45 V)
- Allowing high-density mounting

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	25	V
Average forward current*2	$I_{F(AV)}$	700	mA
Non-repetitive peak forward surge current*1	I_{FSM}	2	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

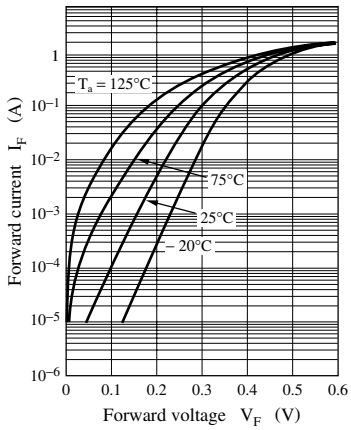
Note) *1 : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)
*2 : Mounted on a alumina printed circuit board

■ Electrical Characteristics T_a = 25°C ± 3°C

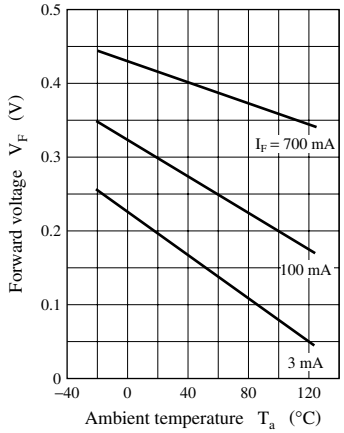
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	V_R = 20 V			200	μA
Forward voltage (DC)	V_F	I_F = 700 mA			0.45	V
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		100		pF
Reverse recovery time	t_{rr}	I_F = I_R = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		7		ns

Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
2. Rated input/output frequency: 250 MHz

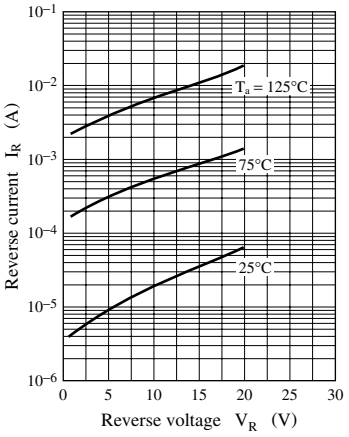
I_F — V_F



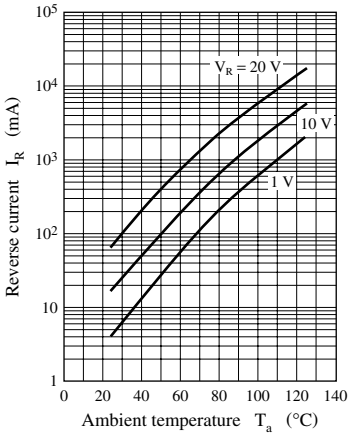
V_F — T_a



I_R — V_R



I_R — T_a



C_t — V_R