MA3ZD120G

Silicon epitaxial planar type

For high speed switching

■ Features

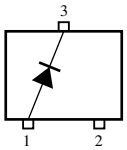
- Forward current (Average) $I_{F(AV)}$ = 700 mA rectification is possible
- Low forward voltage: V_F < 0.45 V
- High-density mounting is possible

■ Package

- Code
  SMini3-F2
- Pin Name
  1: Anode
  2: N.C.
  3: Cathode

■ Marking Symbol: M5E

■ Internal Connection



■ Absolute Maximum Ratings T_a = 25°C

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

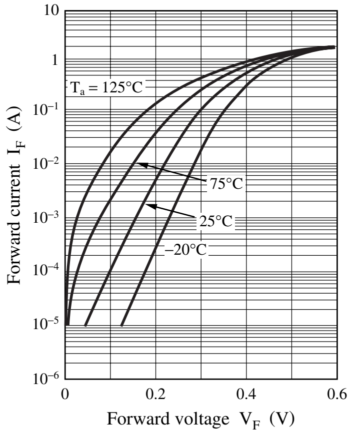
Note) *1: Mounted on an alumina PC board
*2: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

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

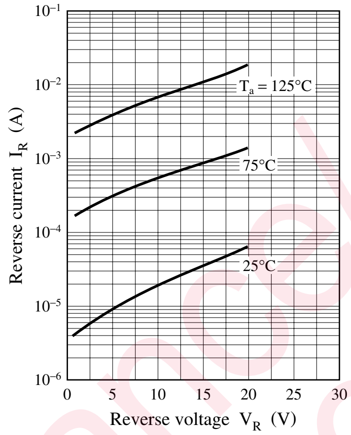
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 700 mA			0.45	V
Reverse current	I_R	V_R = 20 V			200	µA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		100		pF
Reverse recovery time	t_{rr}	$I_F = I_R$ = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		7		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product 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.
3. Absolute frequency of input and output is 250 MHz.

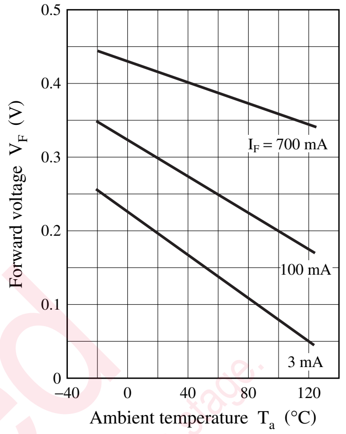
I_F — V_F



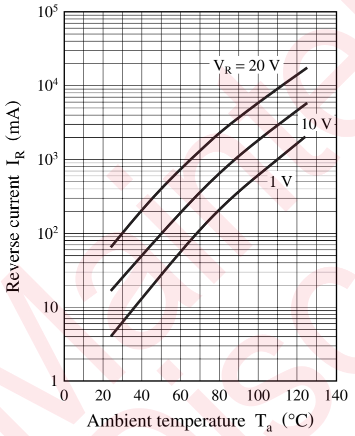
I_R — V_R



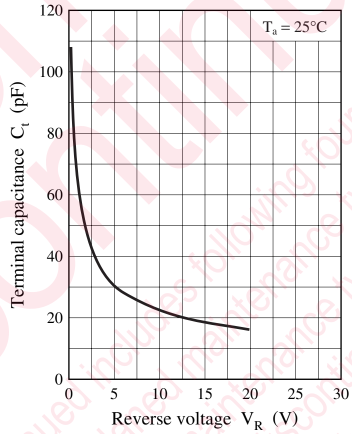
V_F — T_a



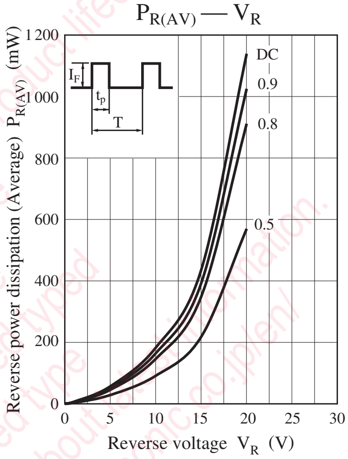
I_R — T_a



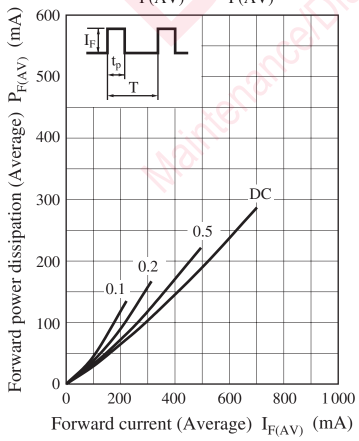
C_t — V_R



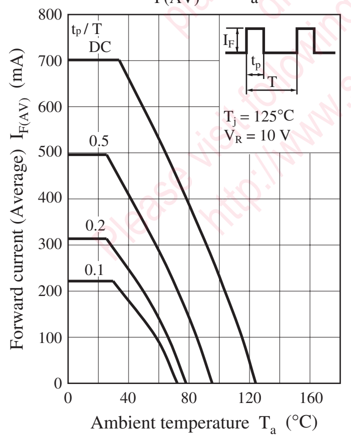
$P_{R(AV)}$ — V_R



$P_{F(AV)}$ — $I_{F(AV)}$

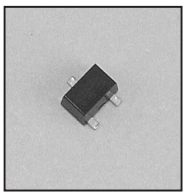


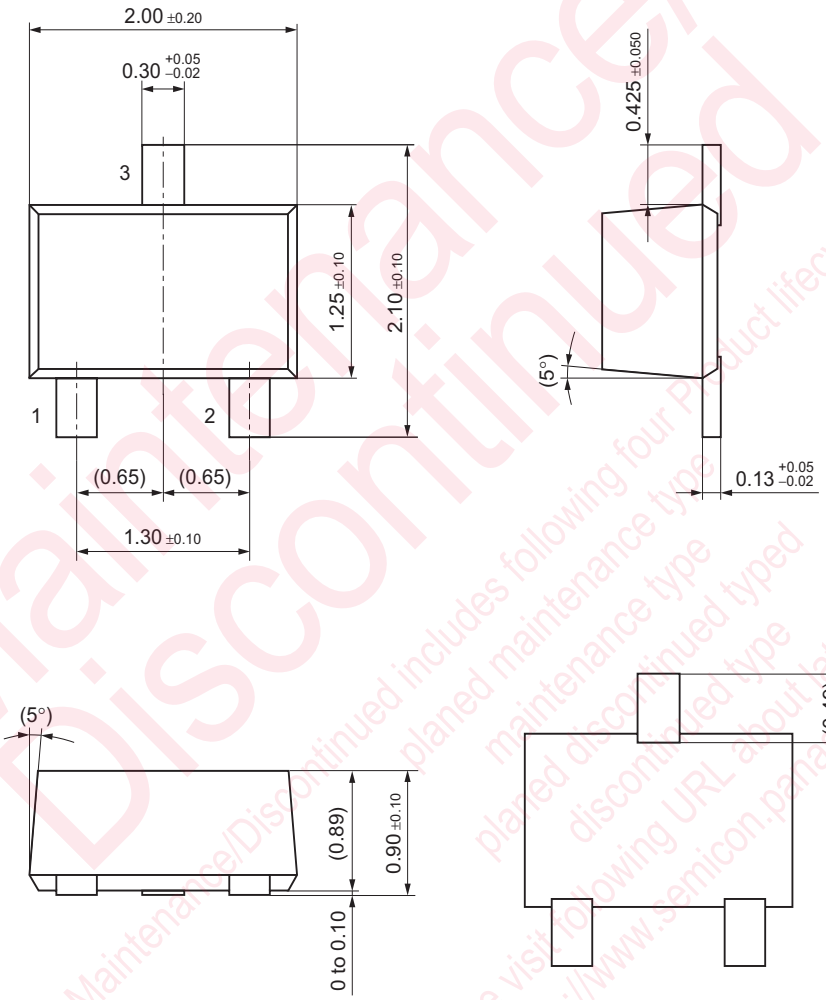
$I_{F(AV)}$ — T_a



SMini3-F2

Unit: mm





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