

MA2Q738 (MA738)

Silicon epitaxial planar type

For high-frequency rectification

■ Features

- Forward current (average) $I_{F(AV)}$: 1.5 A type
- Reverse voltage (DC value) V_R : 40 V
- Allowing automatic insertion with the emboss taping

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	40	V
Repetitive peak reverse voltage	V_{RRM}	40	V
Average forward current*1	$I_{F(AV)}$	1.5	A
Non-repetitive peak forward surge current*2	I_{FSM}	60	A
Junction temperature	T_j	-40 to +125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

Note) *1 : With a printed-circuit board (copper foil area $2.5\text{ mm} \times 2.5\text{ mm}$ + $0.8\text{ mm} \times 20\text{ mm}$ or more on both cathode and anode sides)

*2 : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

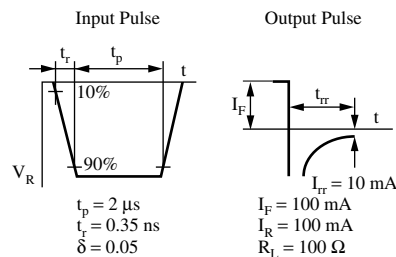
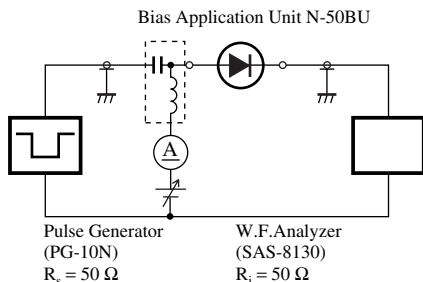
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	$V_R = 40\text{ V}$			2	mA
Forward voltage (DC)	V_F	$I_F = 2\text{ A}$			0.55	V
Terminal capacitance	C_t	$V_R = 10\text{ V}, f = 1\text{ MHz}$		70		pF
Reverse recovery time*	t_{rr}	$I_F = I_R = 100\text{ mA}$ $I_{rr} = 10\text{ mA}, R_L = 100\ \Omega$			50	ns

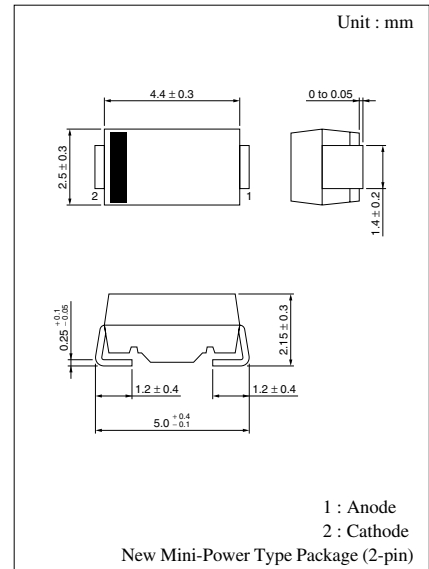
Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

2. Rated input/output frequency: 20 MHz

3. *: t_{rr} measuring instrument



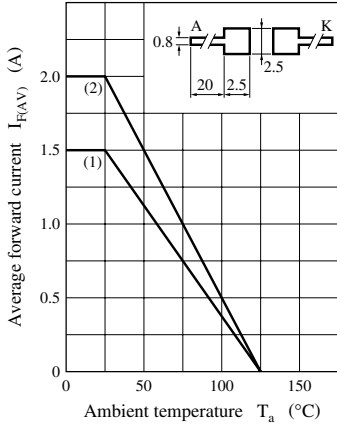
Note) The part number in the parenthesis shows conventional part number.



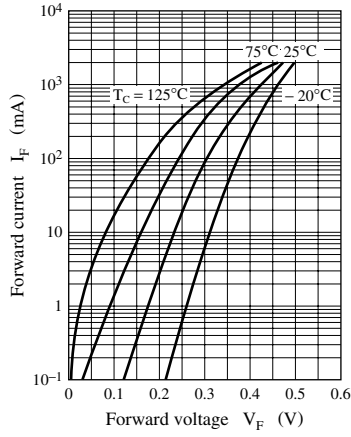
Marking Symbol: PD

$$I_{F(AV)} - T_a$$

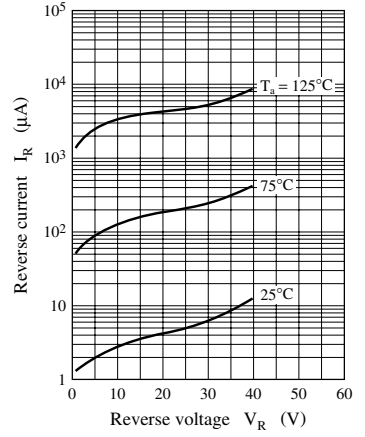
- (1) Printed-circuit board: Glass epoxy board
 - (2) Printed-circuit board: Alumina board
- Copper foil for both A and K sides
2.5 mm × 2.5 mm + 0.8 mm × 20 mm



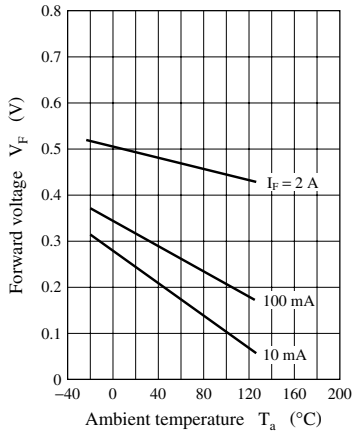
$$I_F - V_F$$



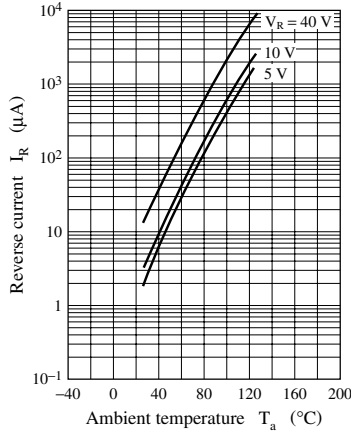
$$I_R - V_R$$



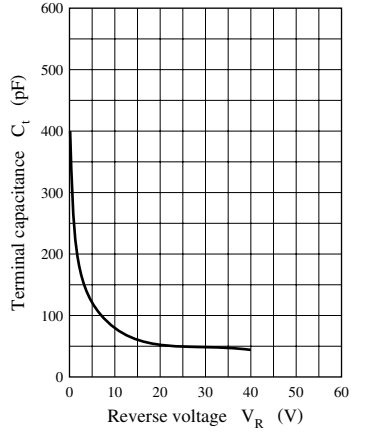
$$V_F - T_a$$



$$I_R - T_a$$



$$C_t - V_R$$



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