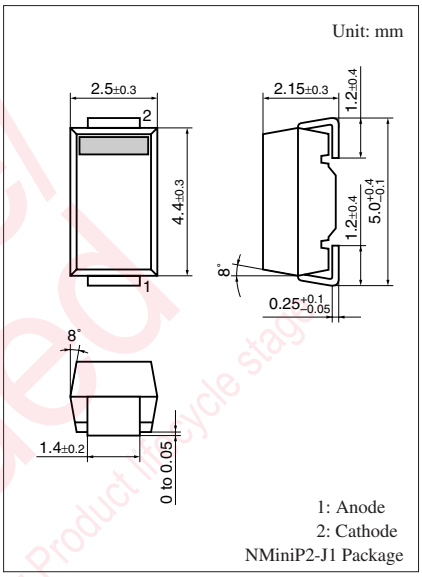
MA2Q705 (MA10705)

Silicon epitaxial planar type

For high frequency rectification



Marking Symbol: PK

■ Features

- Forward current (Average) $I_{F(AV)}$ = 1.5 A rectification is possible
- Low forward voltage: V_F < 0.37 V

■ Absolute Maximum Ratings T_a = 25°C

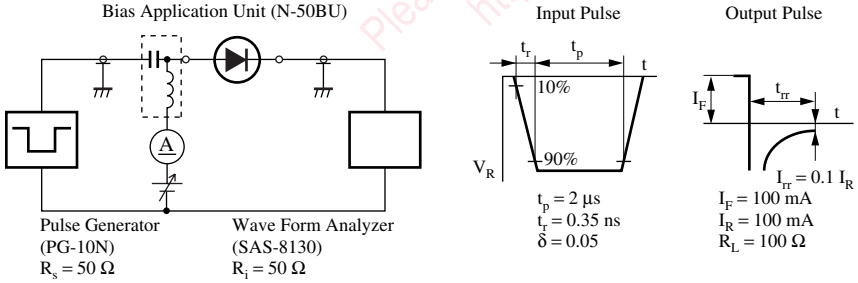
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Repetitive peak reverse voltage	V_{RRM}	30	V
Forward current (Average) *1	$I_{F(AV)}$	1.5	A
Non-repetitive peak forward surge current *2	I_{FSM}	30	A
Junction temperature	T_j	−40 to +125	°C
Storage temperature	T_{stg}	−40 to +125	°C

Note) ∗1: Mounted on the printed circuit board (glass epoxy 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

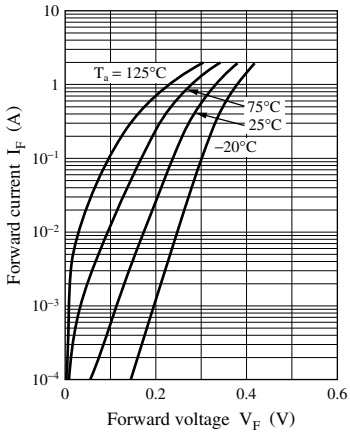
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 1.0 A			0.37	V
Reverse current	I_R	V_R = 30 V			3	mA
Terminal capacitance	C_t	V_R = 10 V, f = 1 MHz		90		pF
Reverse recovery time *	t_{rr}	$I_F = I_R$ = 100 mA I_{rr} = 0.1 I_R, R_L = 100 Ω			50	ns

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 20 MHz.
4. ∗: t_{rr} measurement circuit

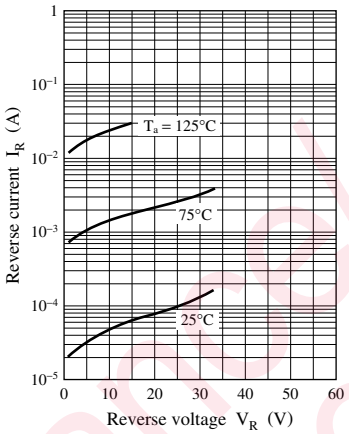


Note) The part number in the parenthesis shows conventional part number.

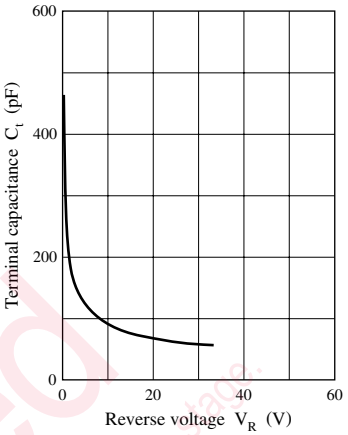
I_F — V_F



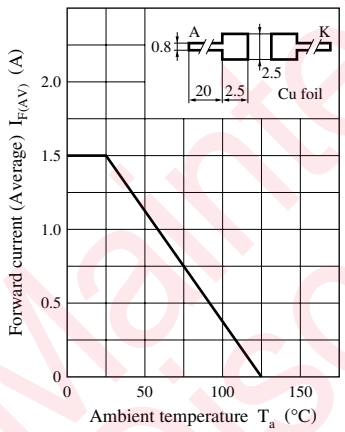
I_R — V_R



C_t — V_R



$I_{F(AV)}$ — T_a



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