MA24D51

Silicon epitaxial planar type

For rectification

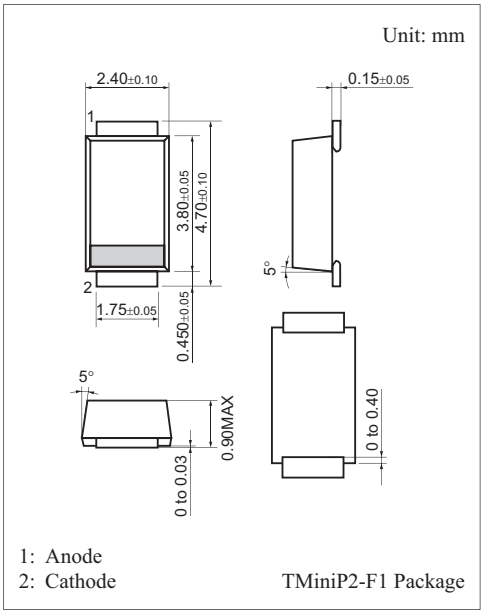
■ Features

- Allowing low-profile mounting
- Forward current (Average) $I_{F(AV)}$ = 3 A rectification is possible
- Low forward voltage V_F

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	40	V
Maximum peak reverse voltage	V_{RM}	40	V
Forward current (Average) *1	$I_{F(AV)}$	3.0	A
Non-repetitive peak forward surge current *2	I_{FSM}	60	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–40 to +150	°C

Note) ∗1: Mounted on an alumina PC board
∗2: 50 Hz sine wave 1 cycle (Non-repetitive peak current)



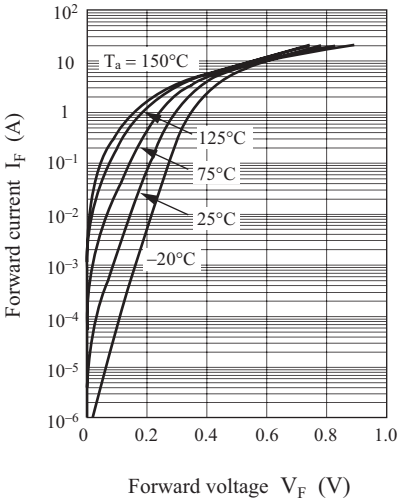
Marking Symbol: 5S

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

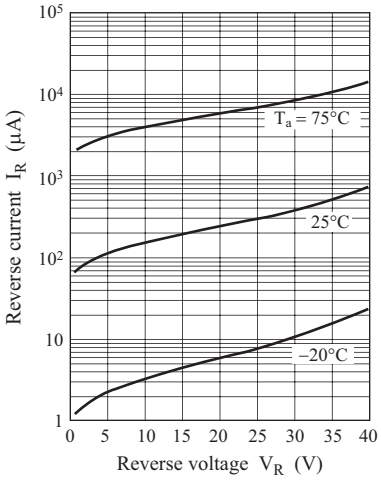
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 3.0 A		0.37	0.42	V
Reverse current	I_R	V_R = 40 V			2	mA
Thermal resistance (j-a) *	$R_{th(j-a)}$			60		°C/W
Thermal resistance (j-l)	$R_{th(j-l)}$			10		°C/W

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. ∗: Mounted on an alumina PC board

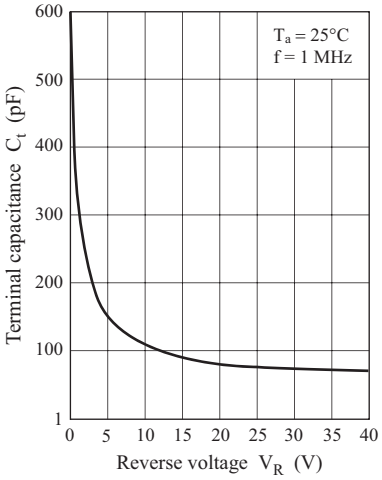
I_F — V_F



I_R — V_R



C_t — V_R



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(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.