MA24D52

Silicon epitaxial planar type

For rectification

■ Features

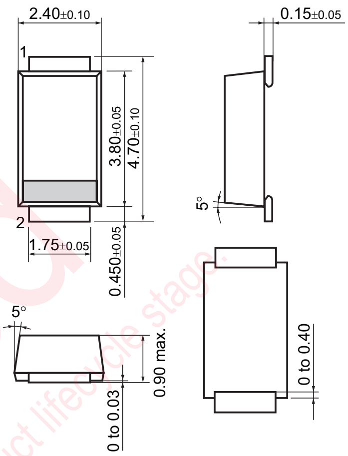
- Forward current (Average) $I_{F(AV)} = 3.0$ A rectification is possible
- Extremely small reverse current I_R

■ 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) *	$I_{F(AV)}$	3.0	A
Non-repetitive peak forward surge current	I_{FSM}	60	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 to +150	°C

Note) *: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

Unit: mm



1: Anode
2: Cathode

TMiniP2-F1 Package

Marking Symbol: 5T

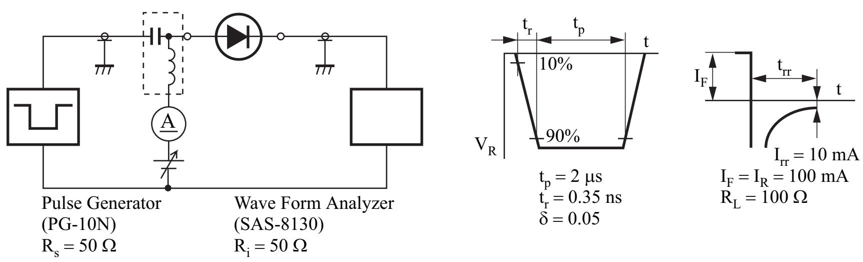
■ Electrical Characteristics $T_a = 25°C±3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward current	V_F	$I_F = 3.0$ A		0.48	0.53	V
Reverse current	I_R	$V_R = 40$ V			50	μA
Terminal capacitance	C_t	$V_R = 10$ V, f = 1 MHz		75		pF
Reverse recovery time *1	t_{rr}	$I_F = I_R = 100$ mA, $I_{rr} = 10$ mA $R_L = 100\ \Omega$		25		ns
Thermal resistance	$R_{th(j-a)}$ *2			55		°C/W
	$R_{th(j-a)}$ *3			210		°C/W
	$R_{th(j-l)}$			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. *1: t_{rr} test Circuit



*2: Mounted on an alumina PC board (board: 50 mm × 50 mm × 0.8 t, soldering land: 1.4 mm × 2.1 mm)

*3: With a glass epoxy PC board (board: 50 mm × 20 mm × 1.0 t, soldering land: 2.0 mm × 2.0 mm + 20 mm × 0.8 mm)

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 Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

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