MA24D70

Silicon epitaxial planar type

For rectification

■ Overview

MA24D70 is optimal for general circuit supplies.

■ Features

- Forward current (Average) $I_{F(AV)}$ = 5.0 A rectification is possible
- Low forward voltage V_F and good rectification efficiency

■ Package

- Code
  TMinP2-F1
- Pin Name
  1: Anode
  2: Cathode

■ Marking Symbol: 5M

■ Absolute Maximum Ratings T_a = 25°C

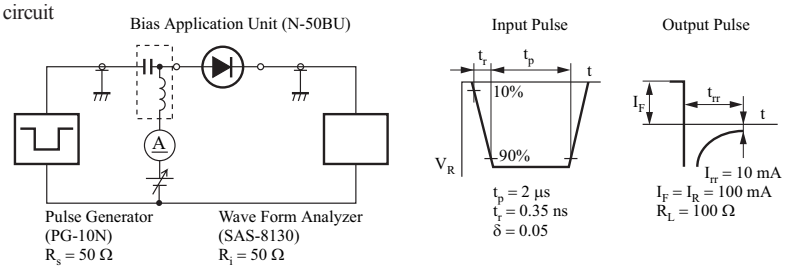
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	35	V
Maximum peak reverse voltage	V_{RM}	35	V
Forward current (Average) *1	$I_{F(AV)}$	5.0	A
Non-repetitive peak forward surge current *2	I_{FSM}	60	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 to +150	°C

Note) ∗1: Lead temperature: Tl = 80°C, DC wave on
∗2: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

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

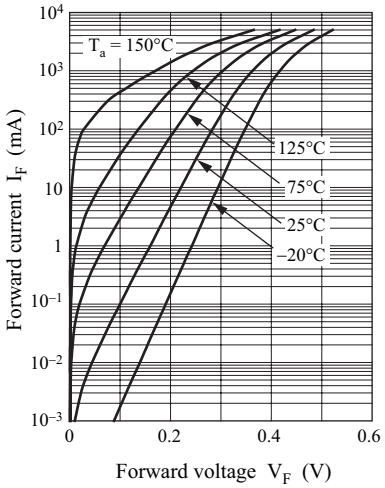
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 3.0 A		0.43	0.48	V
		I_F = 5.0 A		0.49	0.55	
Reverse current	I_R	V_R = 35 V			0.3	mA
Terminal capacitance	C_t	V_R = 10 V, f = 1 MHz		110		pF
Reverse recovery time *1	t_{rr}	$I_F = I_R$ = 100 mA, I_{rr} = 10 mA, R_L = 100 Ω		32		ns
Thermal resistance (j-a)	$R_{th(j\text{-}a)}$	Mounted on an alumina PC board *2		60		°C/W
		Mounted on a glass epoxy PC board *3		220		
Thermal resistance (j-l)	$R_{th(j\text{-}l)}$			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} measurement circuit

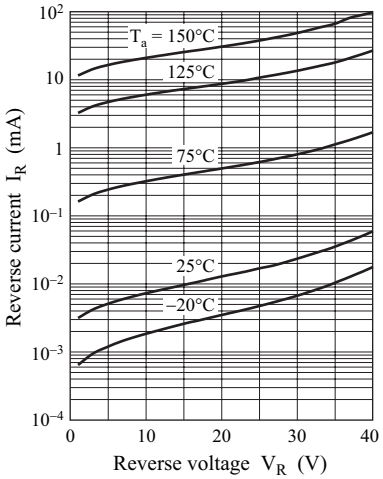


∗2: Mounted on an alumina PC board (Board: 50 mm × 50 mm × 0.8 mm, Soldering land:1.4 mm × 2.1 mm)
∗3: Mounted on an alumina PC board (Board: 50 mm × 20 mm × 1.0 mm, Soldering land: 2.0 mm × 2.0 mm + 20 mm × 0.8 mm)

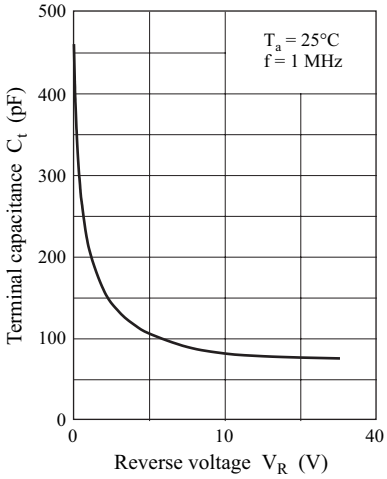
I_F — V_F



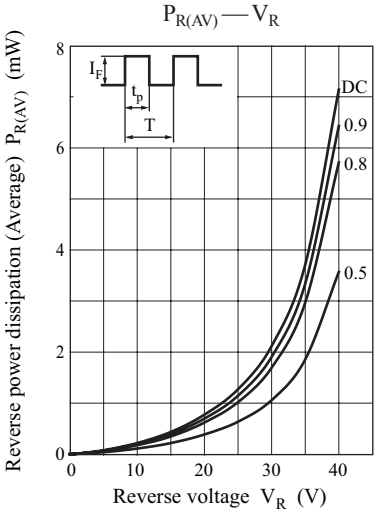
I_R — V_R



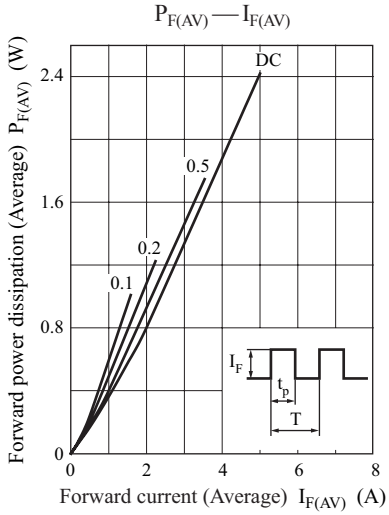
C_t — V_R



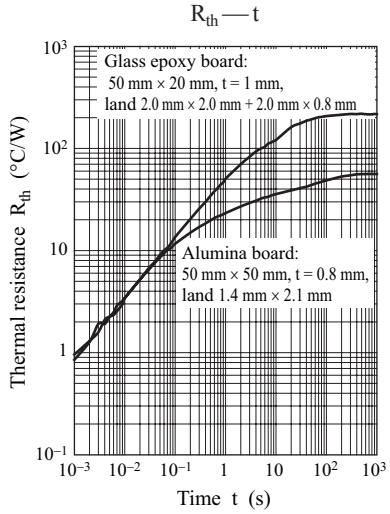
$P_{R(AV)}$ — V_R



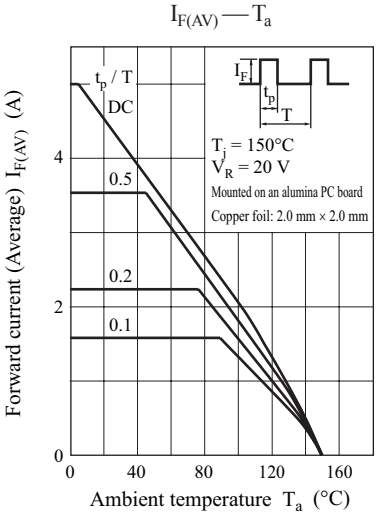
$P_{F(AV)}$ — $I_{F(AV)}$



R_{th} — t

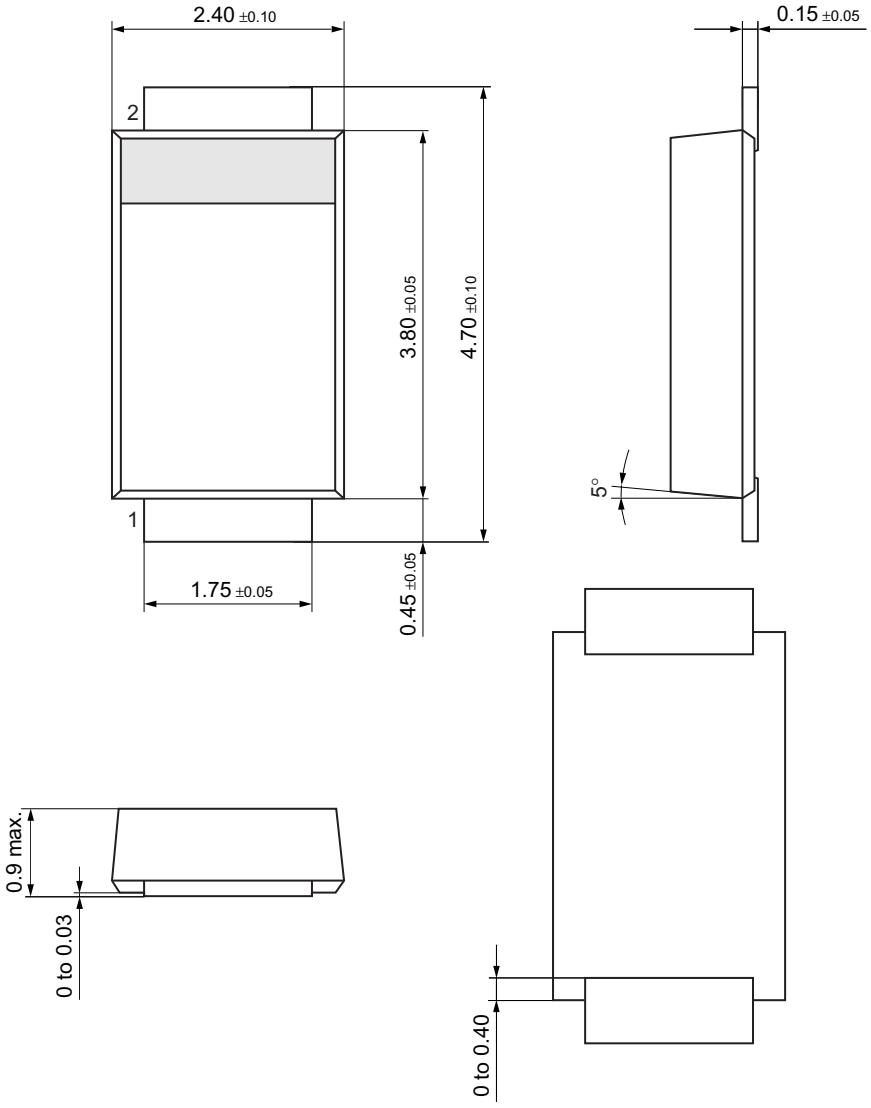


$I_{F(AV)}$ — T_a



TMiniP2-F1

Unit: mm



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