

MA4SD05X

Silicon epitaxial planar type

For high-speed switching circuits

■ Features

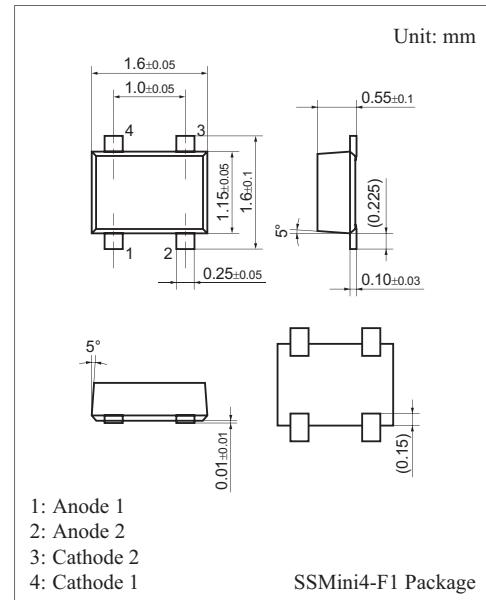
- Two isolated elements are contained in one package, allowing high-density mounting
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr}

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

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	45	V
Maximum peak reverse voltage	V_{RM}	45	V
Forward current ^{*1}	I_F	100	mA
Peak forward current ^{*1}	I_{FM}	300	mA
Non-repetitive peak forward surge current ^{*1, 2}	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

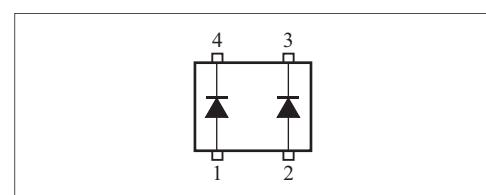
Note) *1: Value for single diode

*2: 50 Hz sine wave 1 cycle (Non-repetitive peak current)



Marking Symbol: M5C

Internal Connection



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

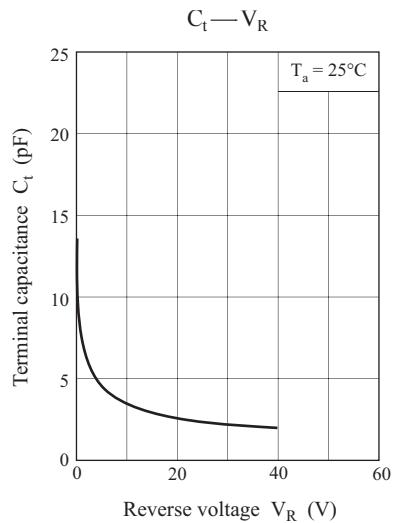
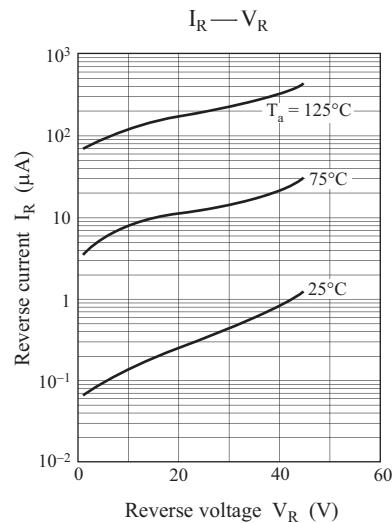
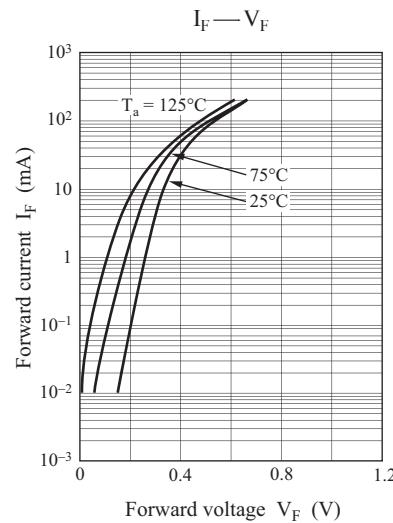
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 1 \text{ mA}$		0.27		V
	V_{F2}	$I_F = 10 \text{ mA}$		0.35		
	V_{F3}	$I_F = 100 \text{ mA}$		0.54	0.60	
Reverse current	I_R	$V_R = 40 \text{ V}$			5	μA
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		12	18	pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100 \text{ mA}, I_{rr} = 10 \text{ mA}$ $R_L = 100 \Omega$		2.0		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Absolute frequency of input and output is 250 MHz

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. *: t_{rr} measurement circuit



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