

FUJI SILICON DIODE ESAC25M-02C, N, D
ESAC25M-04C, N, D SPECIFICATION

1. SCOPE

This specification provides the ratings and the test requirement for silicon diode

2. OUT VIEW

Body surface shall be smooth and free of contamination. Dimensions are described in MK5C 18.187

3. IDENTIFICATION

Diode shall be marked legibly with type name, polarity mark, lot No.

4. RATINGS

4.1 MAXIMUM RATINGS

Item	symbol	Conditions	Value	Unit
repetitive peak reverse voltage	V_{RRM}		-02 -04 200 400	V
Non repetitive peak reverse voltage	V_{RSM}	tw=50ns duty=1/40	250 450	V
Average forward current	I_o	square wave duty=1/2 $T_C=95^{\circ}C$	10	A
Non repetitive peak forward current	I_{FSM}	10ms	70	A
Operating junction temperature	T_j		-40 to 125	$^{\circ}C$
Storage temperature range	T_{stg}		-40 to 125	$^{\circ}C$

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4.2 ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

Item	symbol	Conditions	Value	Unit
Forward voltage	V_F	$I_F=2.5 A$	max. 1.3	V
Reverse current	I_R	$V_R=V_{RRM}$	max. 50	μA
Reverse recovery time	trr	$I_F=I_R=0.1 A$	max. 0.4	μs
Thermal resistance	$R_{th(j-c)}$	Junction to case	max. 3.5	$^{\circ}C/W$

4.3 MECHANICAL CHARACTERISTICS

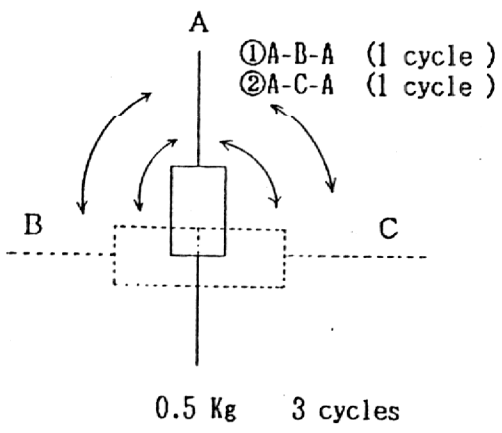
Weight		2.3	g
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	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
DRAWN	1986-08-19	K. ASAZAWA		DWG. NO.	MS5 C6 333
CHECKED	1986-8-21	K. Mori ai			
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5. TEST AND INSPECTION

Standard test condition : Ta=25°C, 65% RH

unless otherwise specified.

Item	Conditions	Judgement
Appearance	Inspected with eye and measure	Item 2. or 3.
Forward and reverse Characteristics	Test on the standard conditions	Item 4.
Heat cycle	-40 °C, 125°C, each 0.5hour, 5cycles removing interval 5minutes.	Item 4. I _R shall be within 250 μA Solderability shall be more than 95%.
Humidity test	60±2 °C, 95%, 500±5hours	
Solderability	solder bath methode 230 ±5 °C, 5sec.	
Soldering heat	260 °C, 10sec, 1.5 mm from the body	
Life test	Tc=95 °C, rated load, 500±5hours	
Lead pull test	2.5Kg, 10 sec	
Lead bend test	 <p>①A-B-A (1 cycle) ②A-C-A (1 cycle)</p> <p>0.5 Kg 3 cycles</p>	The lead shall not be broken and loss.

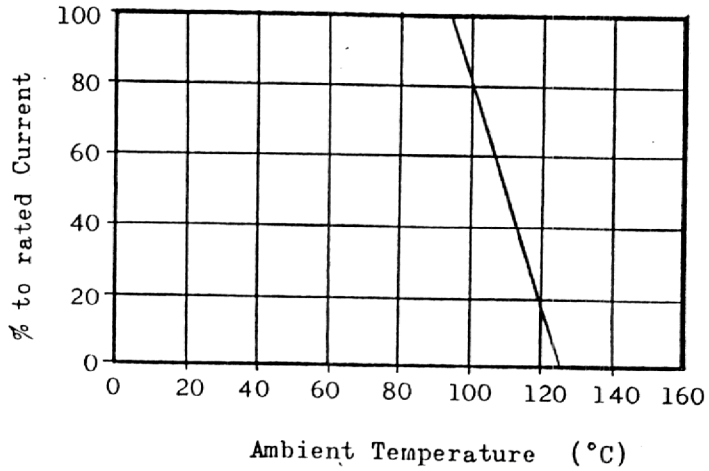
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6. DERATING

Fig. 1. Derating Curve



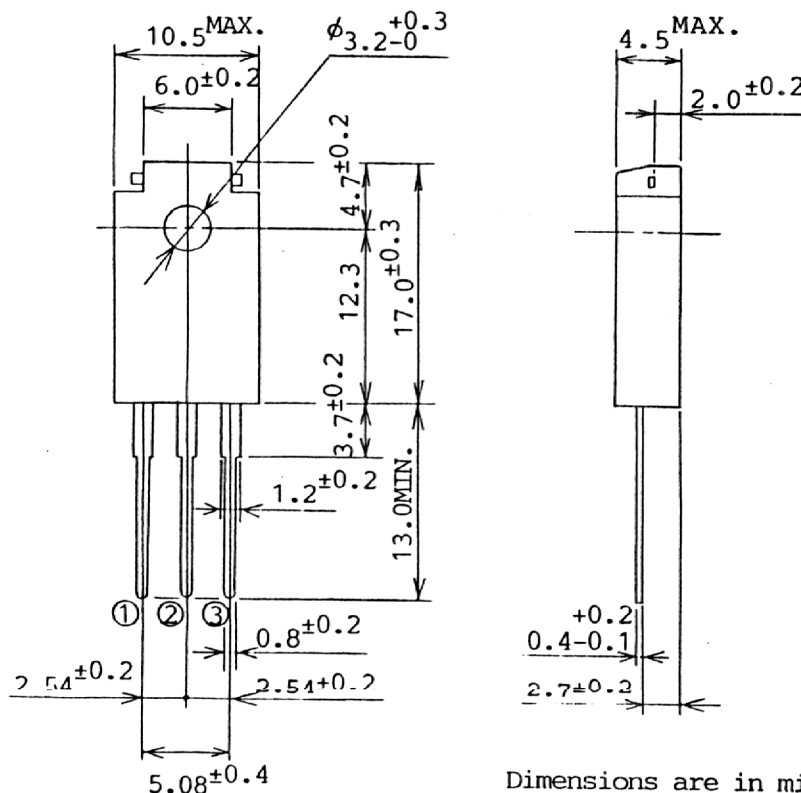
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FUJI SILICON DIODE

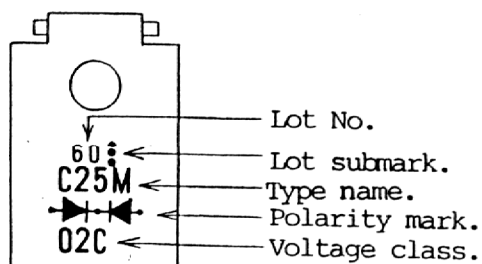
TYPE : ESAC25M-□

OUT VIEW

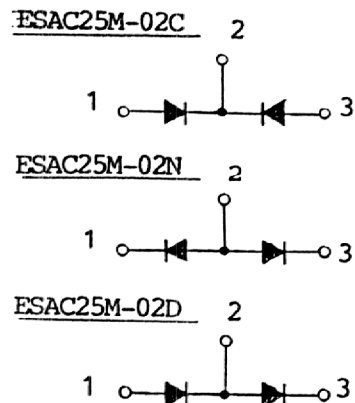


Dimensions are in millimeter.

MARKING



CONNECTION



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DRAWN	1986-10-03	MORIYAMA	

DATE	NAME	APPROVED
1986-10-03	MORIYAMA	

Fuji Electric Co., Ltd.	
DWG. NO.	MK5C18187