

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	$^{\circ}C$

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	t_{rr}	$I_F = I_R = 0.1 A$	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
--------	--	-----	---

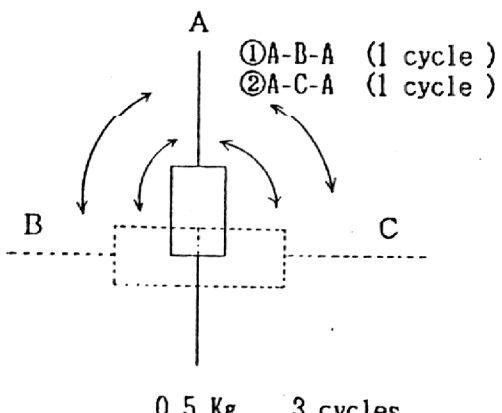
This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS		DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	DWG. NO.	MS5 C6 333	1/3
	DRAWN	1986-08-19	K. ASAZAWA					
	CHECKED	1986-8-21	K. MOTOHARA					

5. TEST AND INSPECTION

Standard test condition : $T_a = 25^\circ\text{C}$, 65% RH

unless otherwise specified.

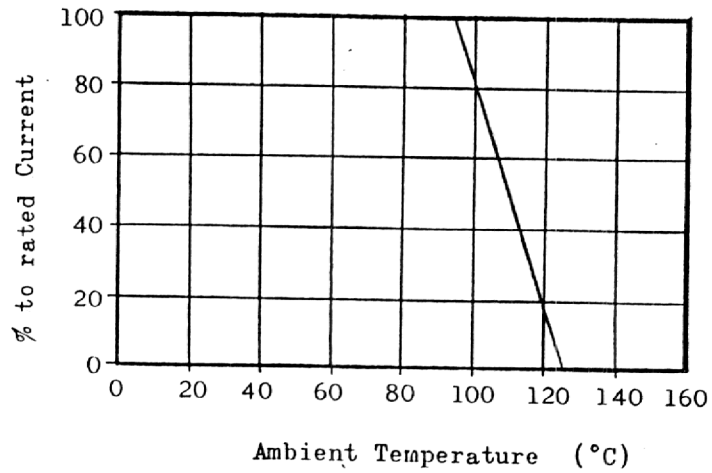
Item	Conditions	Judgement
Appearance	Inspected with eye and measure	Item 2. or 3.
Forward and reverse Characteristics	Test on the standard conditions	Item 4.
Heat cycle	-40°C , 125°C , each 0.5hour, 5cycles removing interval 5minutes.	Item 4. I_R shall be within $250\ \mu\text{A}$ Solderability shall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

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS	DRAWN	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	DWG. NO.	MS5 C6 333	2/3
	CHECKED	-	-					

6. DERATING

Fig. 1. Derating Curve



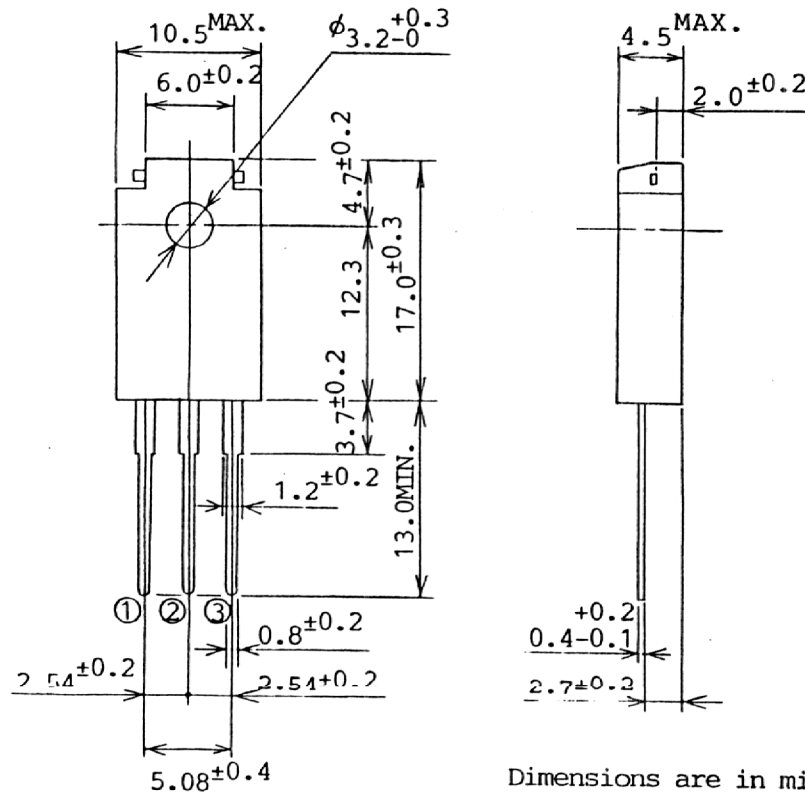
This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

REVISIONS	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	DWG. NO.	MS5 C6 333	3/3		
	DRAWN	- -							
	CHECKED	- -							

FUJI SILICON DIODE

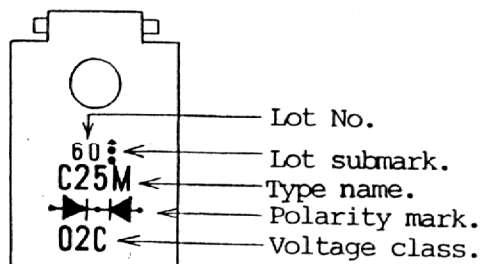
TYPE : ESAC25M-□

OUT VIEW

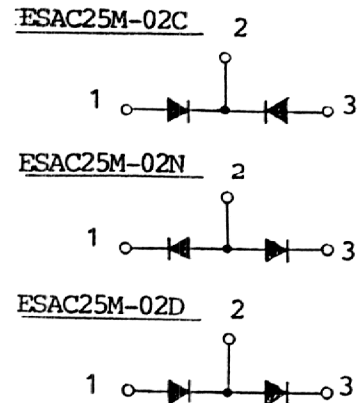


Dimensions are in millimeter.

MARKING



CONNECTION



DATE	NAME	APPROVED	Fuji Electric Co., Ltd.	
DRAWN 1986-10-03	MORIYAMA		DWG. NO.	MK5C18187
CHECKED				
REVISIONS				

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party without the express written consent of Fuji Electric Co., Ltd.