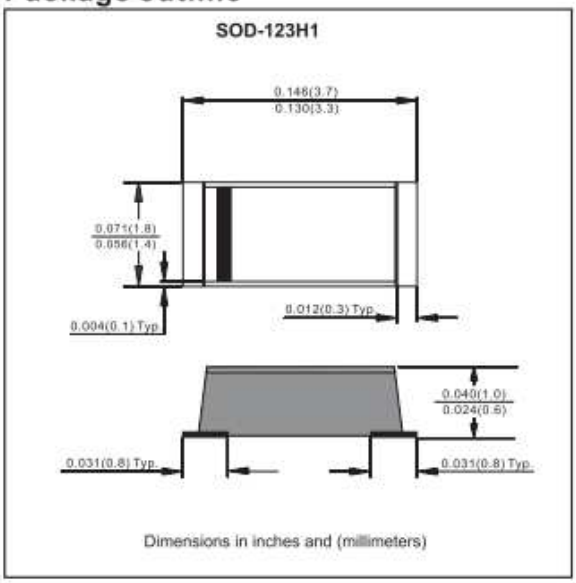
Features

- ◆ Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- ◆ Low profile surface mounted application in order to optimize board space.
- ◆ Tiny plastic SMD package.
- ◆ Super fast recovery time for switching mode application.
- ◆ High current & surge capability.
- ◆ Glass passivated chip junction.
- ◆ Lead-free parts meet RoHS requirments.
- ◆ Suffix "-H" indicates Halogen free parts, ex.ECCSR0011-MH1-H.

Package outline



Mechanical Data

- ◆ Epoxy : UL94-V0 rated flame retardant
- ◆ Case : Molded plastic, DO-214AC /SMA-S
- ◆ Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Indicated by cathode band
- ◆ Mounting Position : Any
- ◆ Weight : Approximated 0.05 gram

Maximum Ratings and Electrical Characteristics (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOLS	0011 -MH1	0012 -MH1	0013 -MH1	0014 -MH1	0015 -MH1	0016 -MH1	0017 -MH1	0018 -MH1	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current	I_O	1.0								A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	I_{FSM}	25								A
Maximum forward voltage at I_F=1.0A	V_F	0.95				1.25		1.70		V
Maximum DC reverse current T_J =25℃ at rated DC blocking voltage T_J =125℃	I_R	5.0 100								uA
Typical junction capacitance (Note 2)	C_J	10								pF
Maximum reverse recovery time (Note 1)	Trr	35								ns
Operating junction temperature range	T_J	-55 to +150								℃
Storage temperature range	T_{STG}	-55 to +150								℃

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

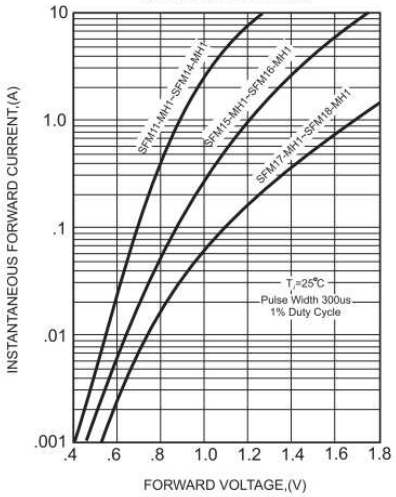


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

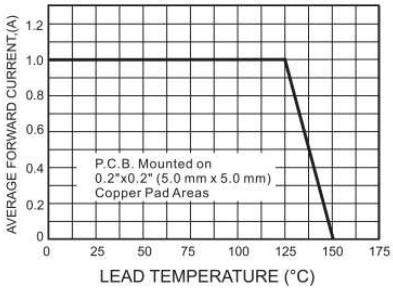
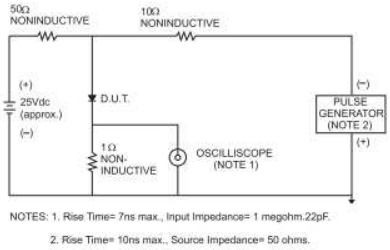


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

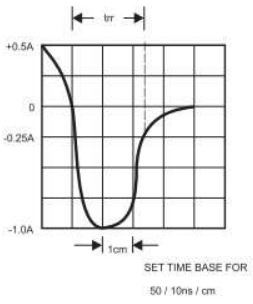


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

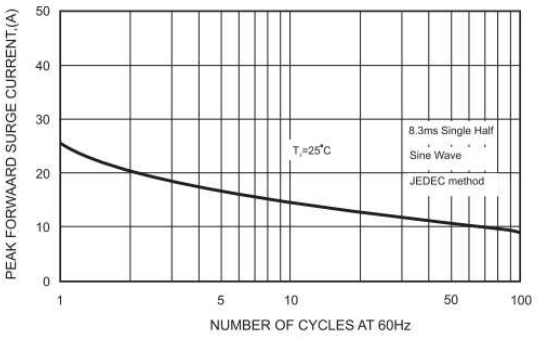
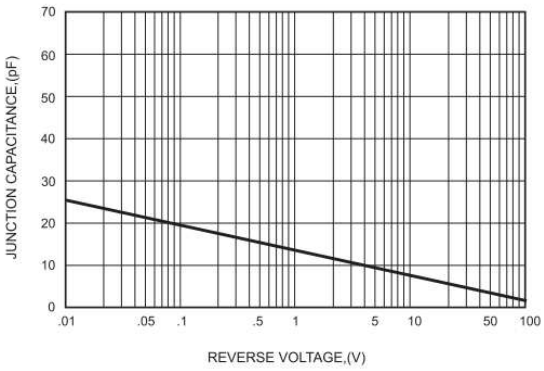


FIG.5-TYPICAL JUNCTION CAPACITANCE



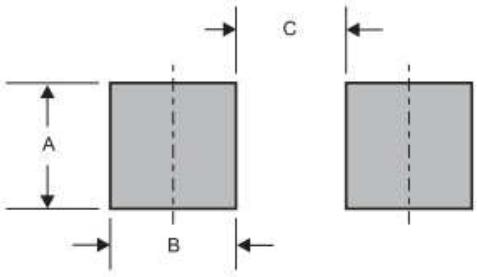
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
ECCSR0011-MH1/ ECCSR0011--MH1-H	S1
ECCSR0012--MH1 / ECCSR0012--MH1-H	S2
ECCSR0013--MH1 / ECCSR0013--MH1-H	S3
ECCSR0014--MH1 / ECCSR0014--MH1-H	S4
ECCSR0015--MH1 / ECCSR0015--MH1-H	S5
ECCSR0016--MH1 / ECCSR0016--MH1-H	S6
ECCSR0017--MH1 / ECCSR0017--MH1-H	S7
ECCSR0018--MH1 / ECCSR0018--MH1-H	S8

Suggested solder pad layout



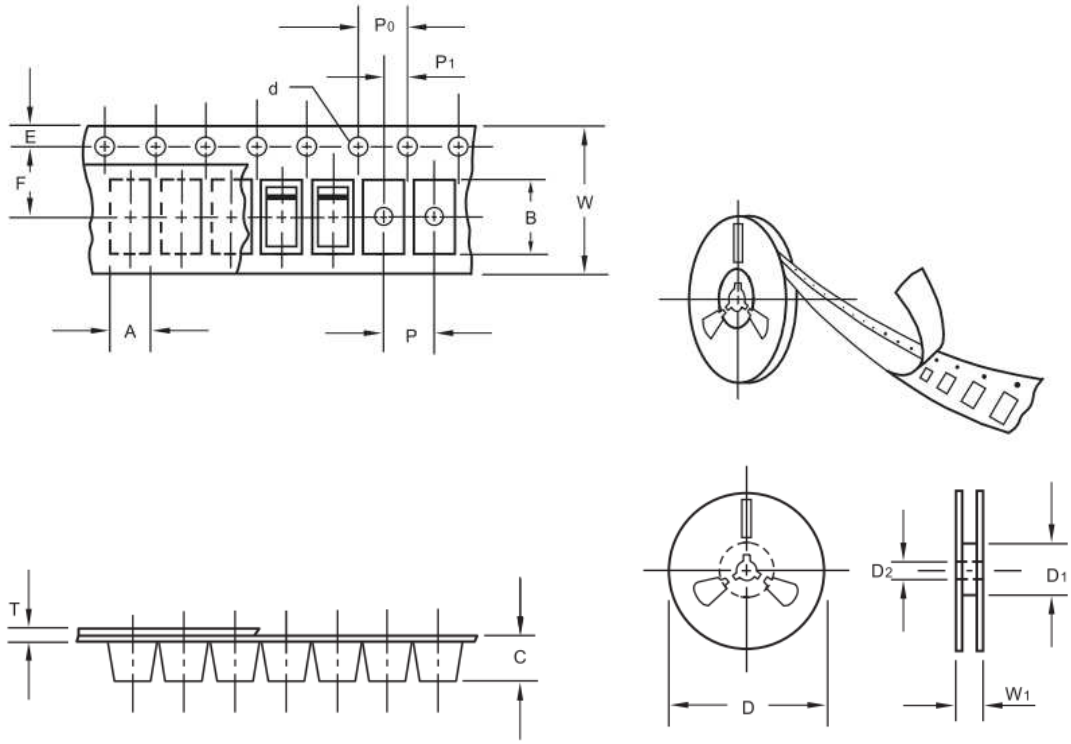
Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123H1	0.071 (1.80)	0.051 (1.30)	0.067 (1.70)

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA. (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-123H1	7"	3,000	4.0	30,000	183*183*123	178	382*262*387	240,000	8.5

Packing information



unit:mm

Item	Symbol	Tolerance	SOD-123H1
Carrier width	A	0.1	2.00
Carrier length	B	0.1	3.85
Carrier depth	C	0.1	1.10
Sprocket hole	d	0.1	1.50
13" Reel outside diameter	D	2.0	-
13" Reel inner diameter	D_1	min	-
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	62.00
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.23
Tape width	W	0.3	8.00
Reel width	W_1	1.0	11.40

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.