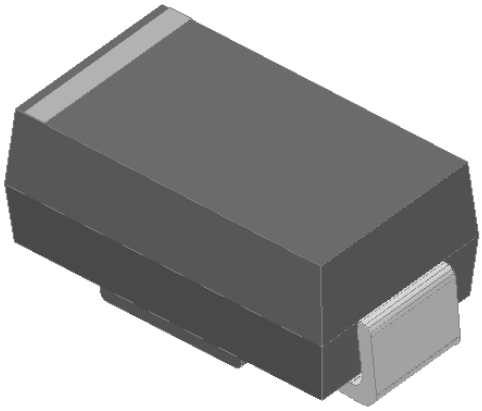
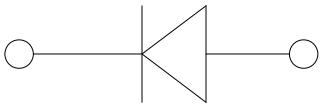
四川旭茂微科技有限公司
Sichuan Xu Mao Micro Technology Co.,Ltd

ES1A THRU ES1J

Express recovery diode
Reverse Voltage50V-600v
Forward current-1A





Features

Glass passivated chip
High surge current capability
Ldeal for surface mounted applications
Low power loss, high efficiency
Plastic Case Material has UL Flammability

Mechanical Data

Package: SMA
Terminals:Tin Plated leads, solderable per
Mil-STD-750 Method 2026
Polarity: As marked
Molding compound meets UL 94 V-0 flammability rating,
ROHS-compliant

Maximum Ratings (Ta=25℃ Unless otherwise specified)

Type Number	SYMBOL	ES1					
		A	B	D	G	J	Umit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current	$IO_{(AV)}$	1.0					A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	25.0					A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃		50.0					A
Current squared time @1ms≤t8.3≤ms Tj=25℃， Rating of per diode	I^2t	2.6					A^2S
Maximum Forward Voltage at 1.0A DC	V_{FM}	0.95			1.3	1.7	V
Maximum Reverse Current TA = 25℃	IR	5.0					uA
at Rated DC Blocking Voltage TA = 125℃		100.0					
Maximum reverse recovery time	Trr	35.0					ns
Typical Thermal Resistance Between junction and	R_{QJa}	65.0					℃/W
Operating Junction Temperature Range	T_J	—55to+150					℃
Storage Temperature Range	T_{STG}	—55to+150					℃

FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

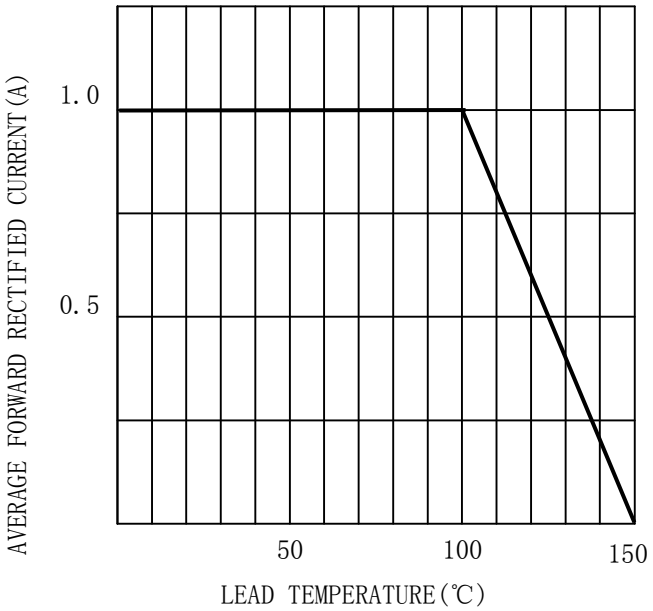


FIG.2TYPICAL FORWARD CHARACTERISTICS

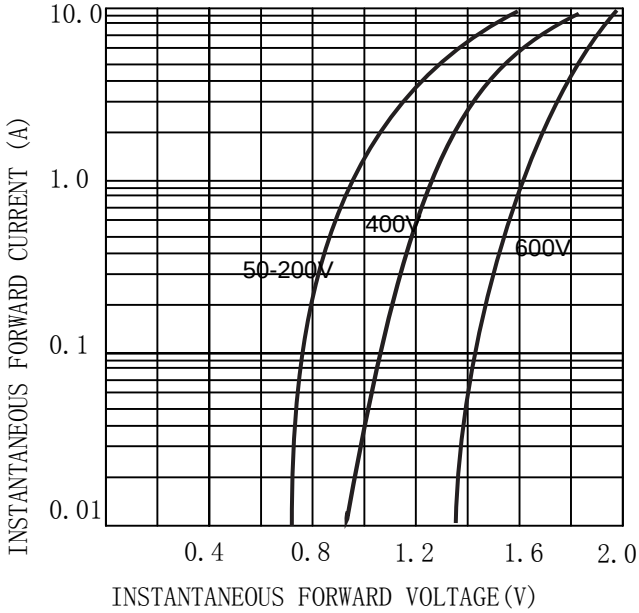


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

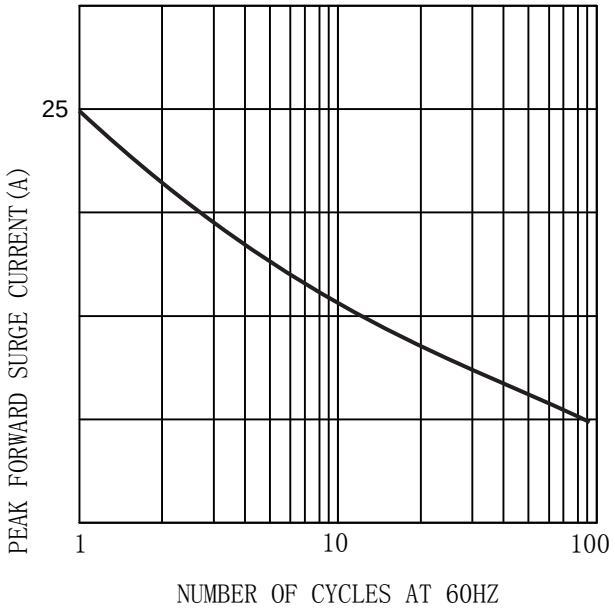
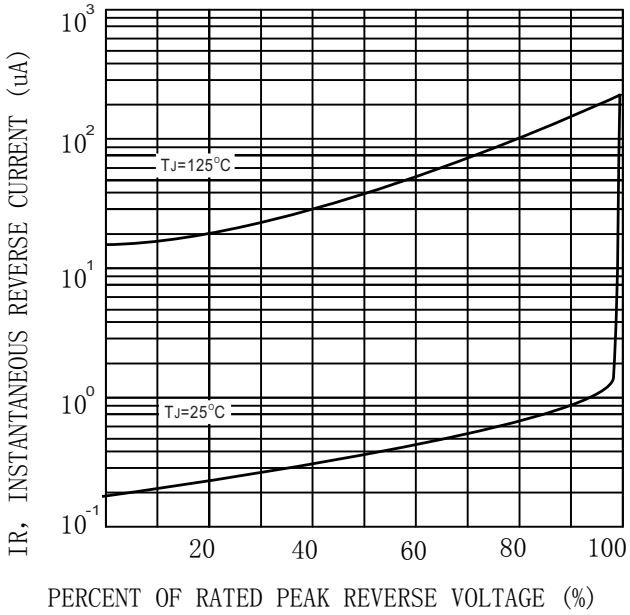


FIG. 4 TYPICAL REVERSE CHARACTERISTICS(per element)



MARKING INFORMATION

= Logo

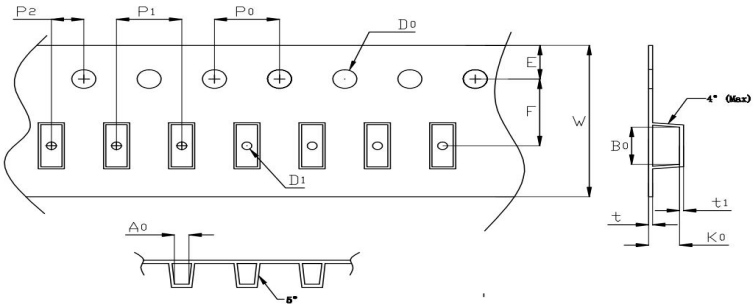
**** = Date Code Marking

ES1* = Marking Code

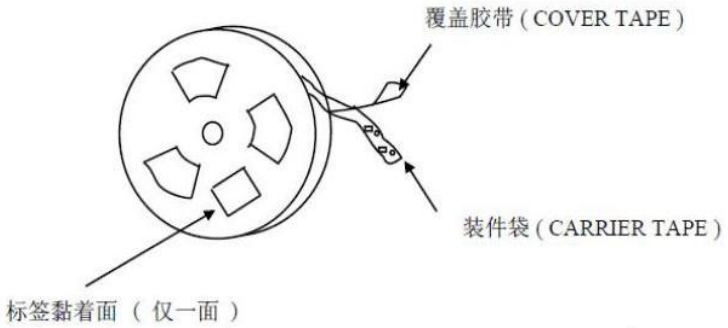
Print according to customer request

PACKING REQUIRMENTS

- Carrier tape packing



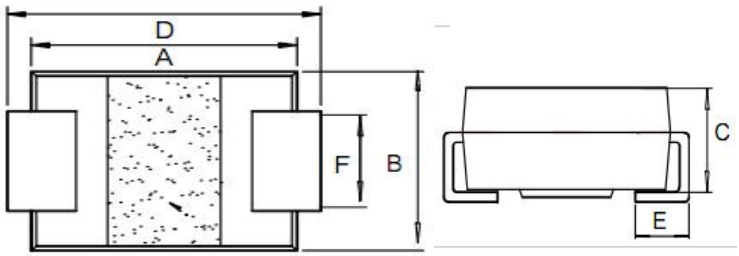
Specifications	Carrier tape type	Ao	Bo	Ko	Po	W	t	Exiplain
SMA	Anti-static	2.65± 0.10	5.20± 0.10	2.30± 0.10	4.00± 0.10	12.0± 0.10	0.20± 0.05	



DEVICE TYPE	Tape width	11"Reel			11"Reel		
		Q'TY/REEL (pcs)	BOX/CARTOON	Q'TY/REEL (pcs)	Q'TY/REEL (pcs)	BOX/CARTOON	Q'TY/REEL (pcs)
SMA	12mm	5000	20	100000	5000	18	90000

Outline Dimensions

SMA



SMA				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.16	0.18	4.05	4.65
B	0.09	0.11	2.4	2.8
C	0.07	0.09	1.8	2.3
D	0.18	0.21	4.67	5.27
E	0.04	0.06	1	1.4
F	0.05	0.06	1.2	1.6

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