



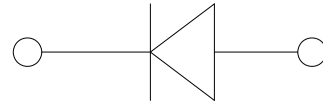
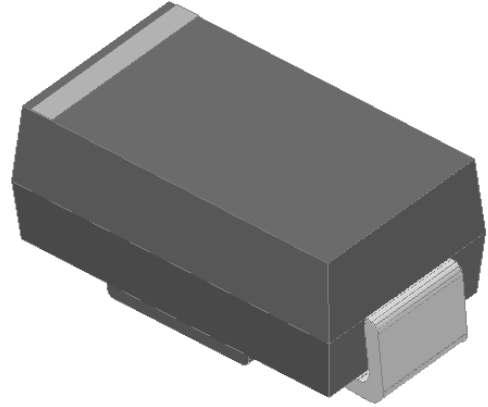
**Express recovery diode**  
**Reverse Voltage 50V-600v**  
**Forward current-3A**

### Features

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

### Mechanical Data

- Package: SMC
- 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°C Unless otherwise specified)

Type Number	SYMBOL	ES3A THRU ES3J					
		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	$I_{O(AV)}$	3.0					A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	80.0					A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C		160.0					A
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	$I^2t$	26.6					A <sup>2</sup> S
Maximum Forward Voltage at 3.0A DC	$V_{FM}$	0.95		1.3	1.7	V	
Maximum Reverse Current TA = 25°C	IR	5.0					uA
at Rated DC Blocking Voltage TA = 125°C		100.0					
Maximum reverse recovery time	Trr	35.0					ns
Typical Thermal Resistance Between junction and	$R_{QJa}$	48.0					°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55to+150					°C
Storage Temperature Range	T <sub>STG</sub>	-55to+150					°C



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

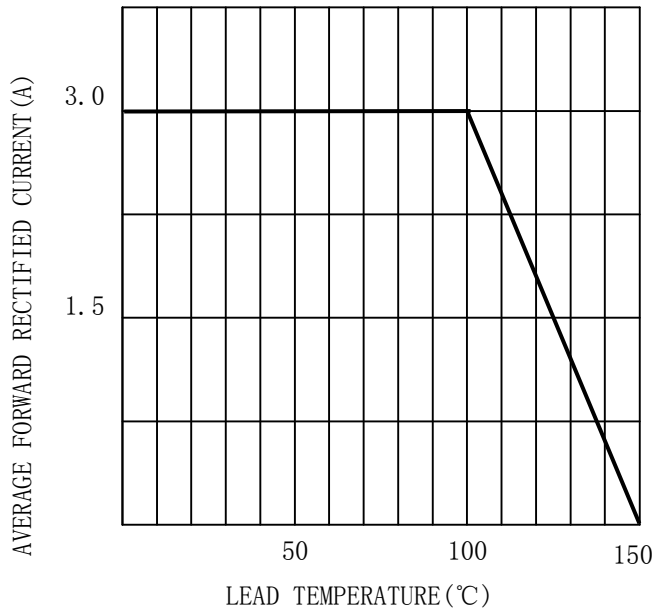


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

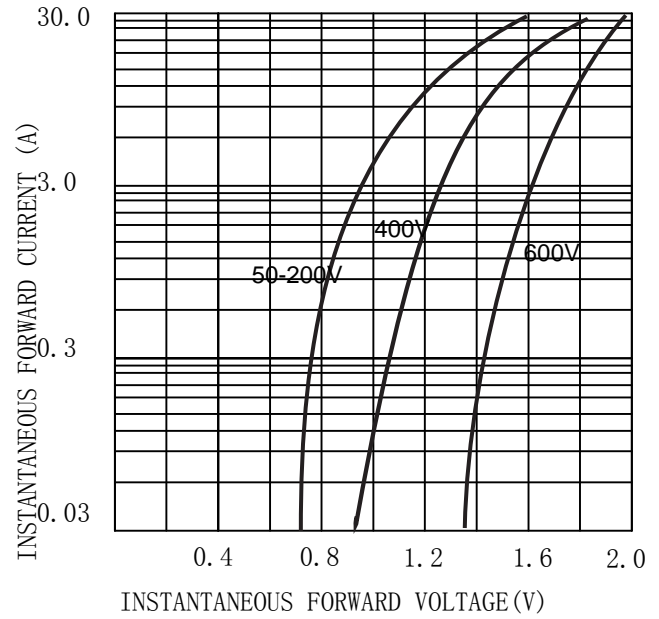


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

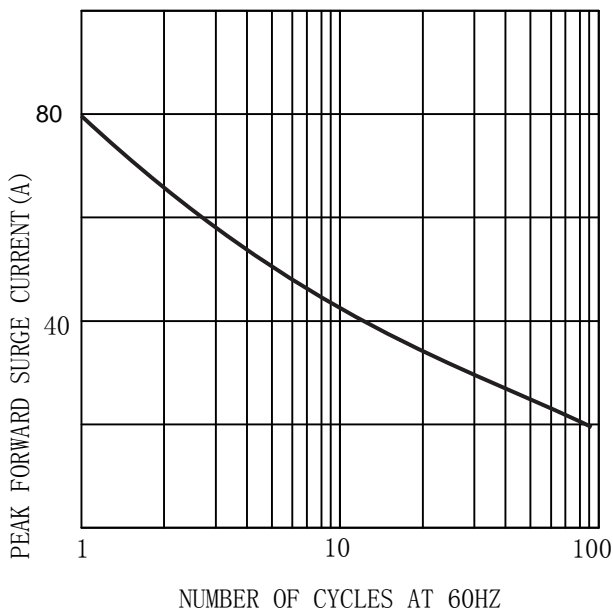
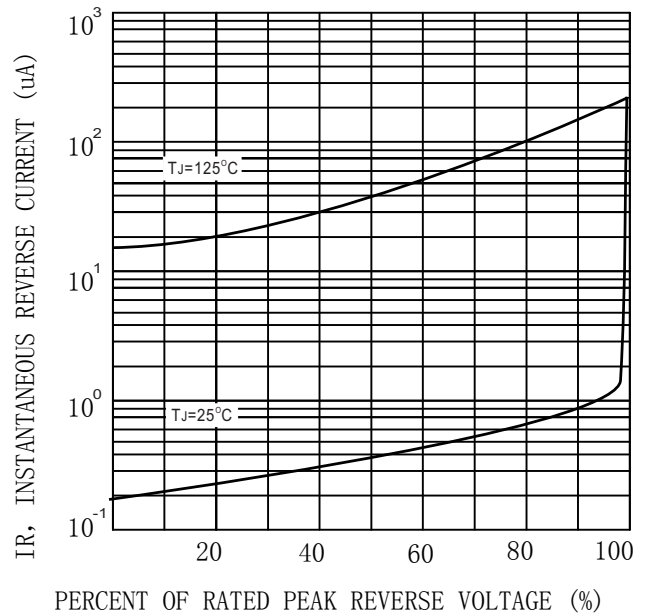



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





## MARKING INFORMATION



 = Logo

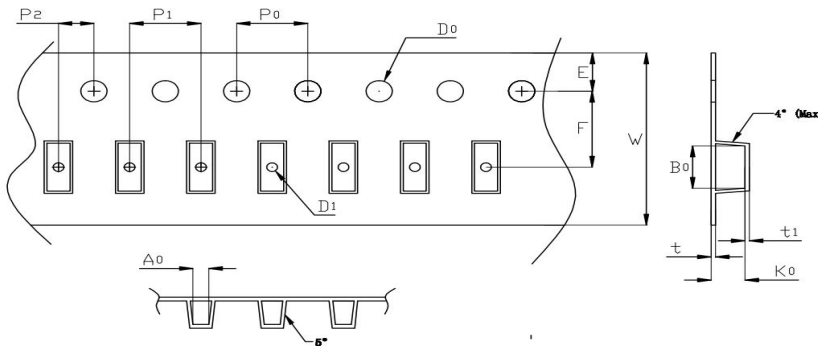
\*\*\*\* = Date Code Marking

ES\*\* = Marking Code

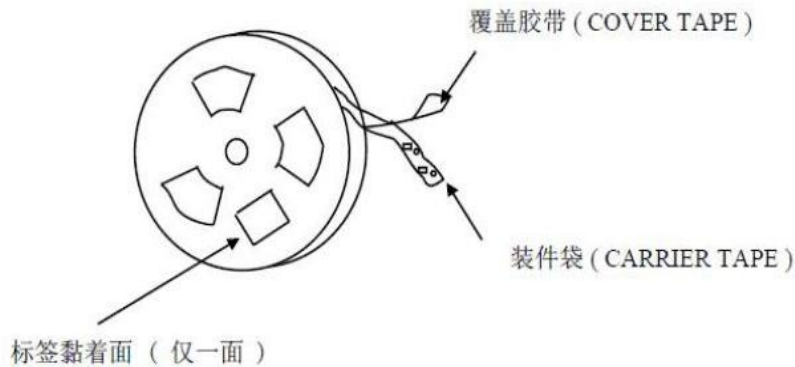
Print according to customer request

## PACKING REQUIRMENTS

- Carrier tape packing



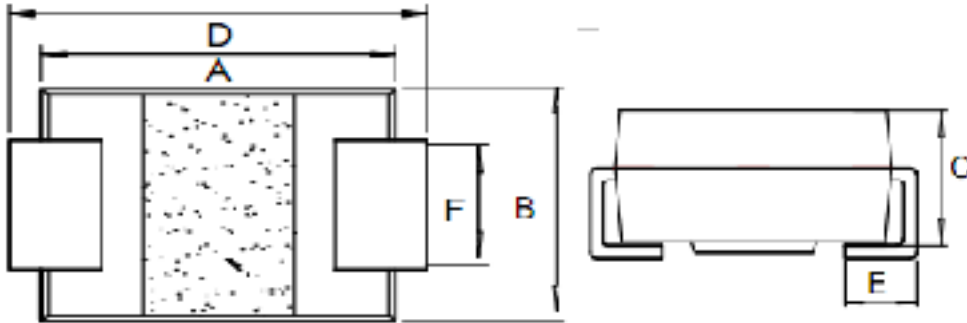
Specifications	Carrier tape type	Ao	Bo	Ko	Po	W	t	Explain
SMC	Anti-static	6.05±0.1	8.31±0.1	2.54±0.1	3.98±0.05	15.95±0.05	0.23±0.02	



DEVICE TYPE	Tape width	'Reel		
		Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)
SMC	13.3	3000	T/R	3000



### Outline Dimensions



SMC				
DIM	INC HES		MM	
	MIN	MAX	MIN	MAX
A	0.26	0.28	6.6	7.1
B	0.22	0.24	5.5	6.2
C	0.08	0.10	2	2.6
D	0.30	0.32	7.7	8.2
E	/	0.06	/	1.5
F	0.11	0.13	2.9	3.2



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Sichuan Xu Mao Micro Technology Co., Ltd

ES3AC THRU ES3JC

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