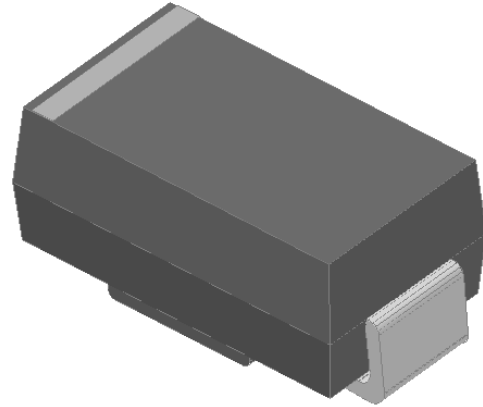




**Express recovery diode**  
**Reverse Voltage 50V-600v**  
**Forward current-5A**

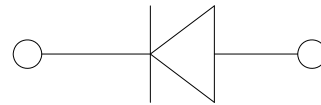
**Features**

- 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: SMB
- 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	ES5J	Umit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current at TL = 100 °C	$I_{O(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	120.0	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C		240.0	A
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	$i^2t$	59.8	A <sup>2</sup> S
Maximum Forward Voltage at 5.0A DC	$V_{FM}$	1.7	V
Maximum Reverse Current TA = 25°C	IR	5.0	uA
at Rated DC Blocking Voltage TA = 100°C		100.0	
Maximum reverse recovery time	Trr	35.0	ns
Typical Thermal Resistance Between junction and	$R_{QJa}$	65.0	°C/W
Operating Junction Temperature Range	$T_J$	-55to+150	°C
Storage Temperature Range	$T_{STG}$	-55to+150	°C



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

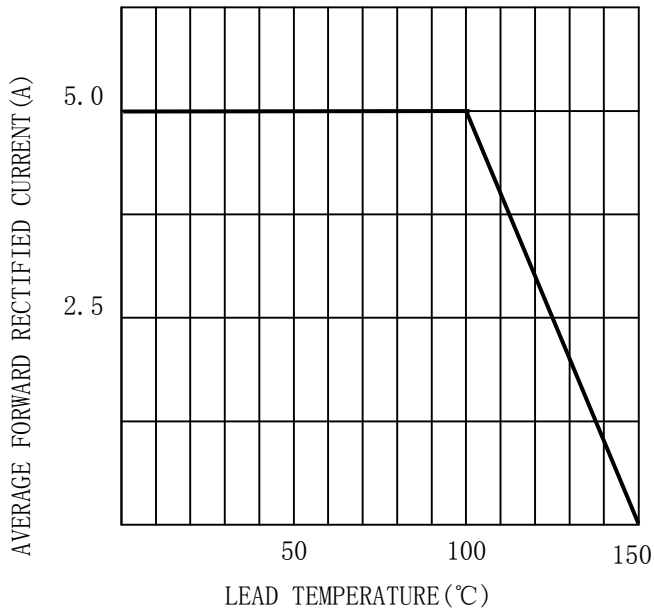


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

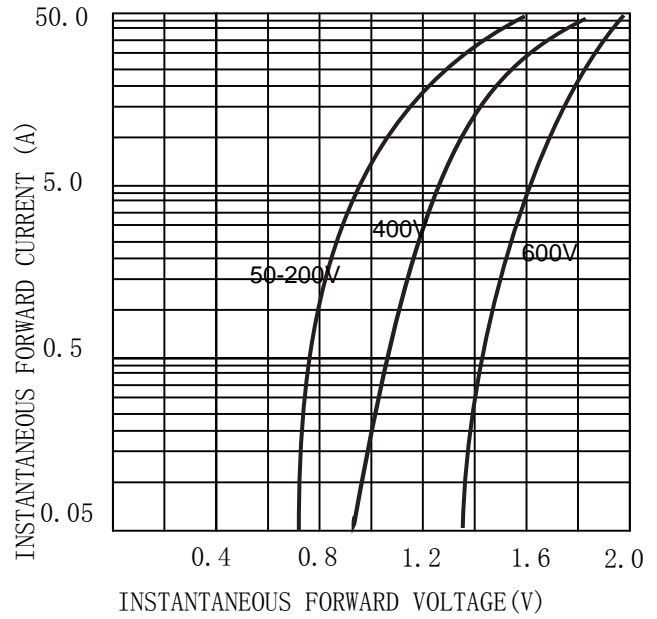


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

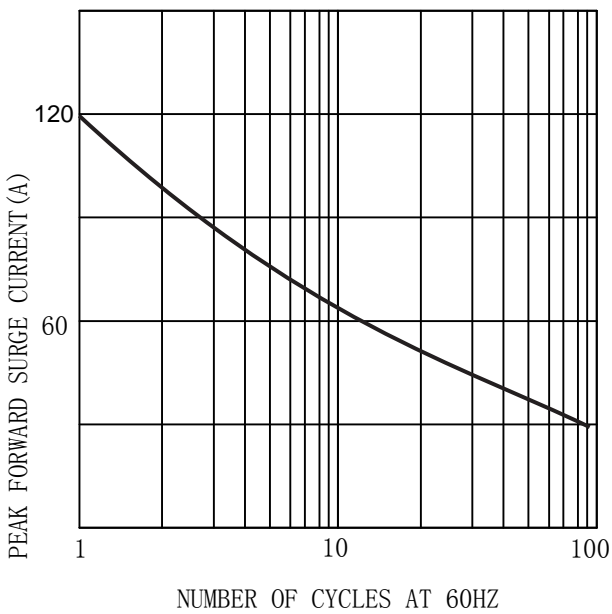
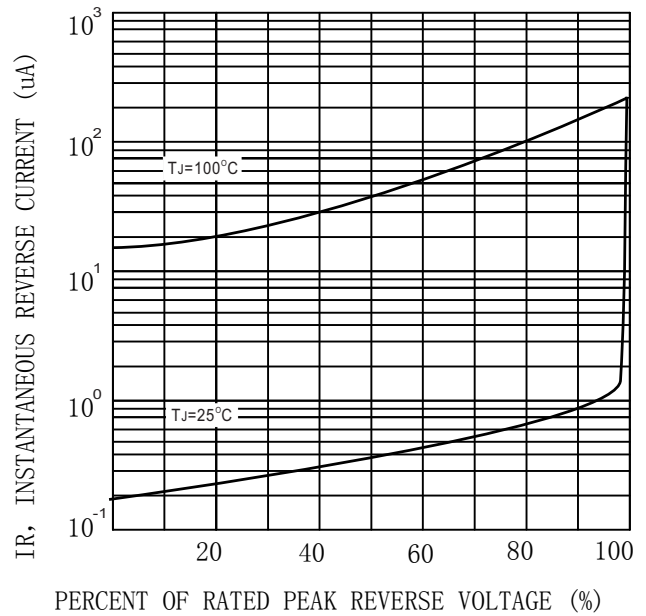



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





## MARKING INFORMATION

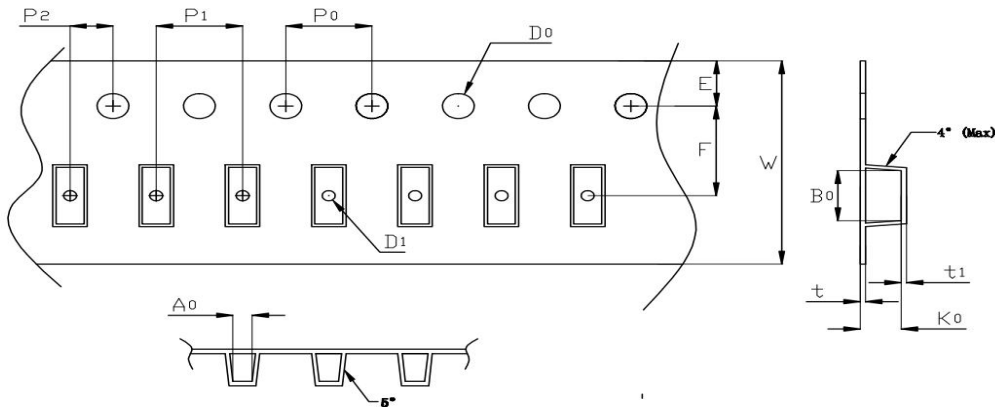


 = Logo  
 \*\*\*\*\* = Date Code Marking  
 ES3\* = Marking Code

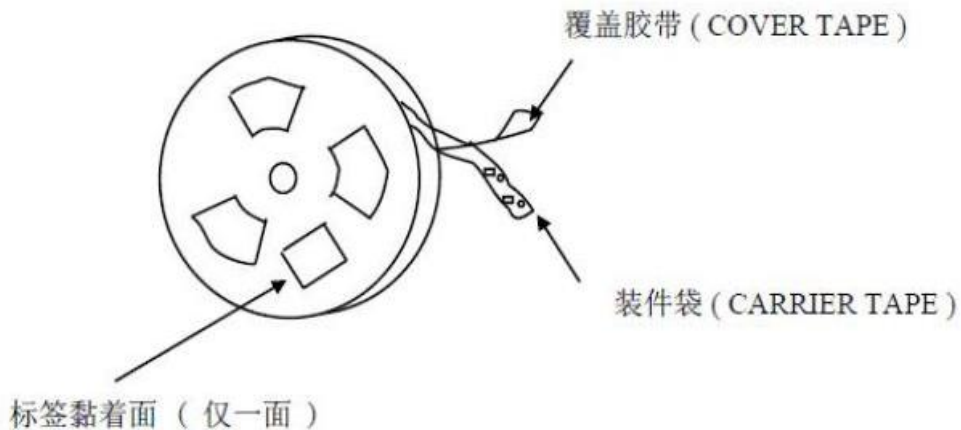
Print according to customer request

## PACKING REQUIRMENTS

### Carrier tape packing



Specifications	Carrier tape type	Ao	Bo	Ko	Po	W	t	Explain
SMB	Anti-static	3.8± 0.10	5.4± 0.10	2.45± 0.10	4.00± 0.10	12.0± 0.10	0.23± 0.05	

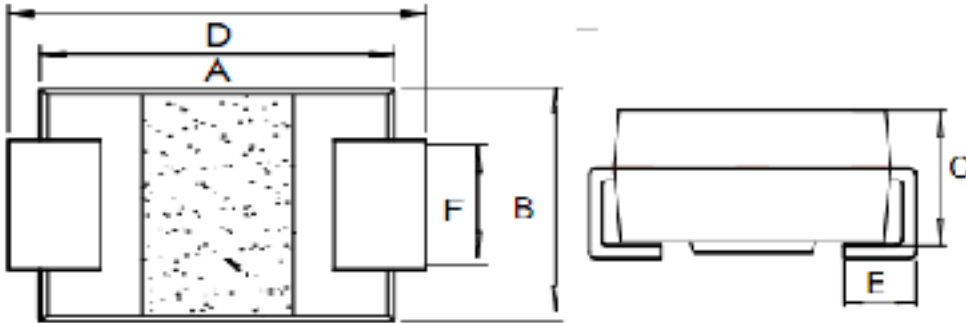


DEVICE TYPE	Tape width	13"Reel		
		Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)
SMB	12mm	3000	20	60000



## Outline Dimensions

### SMB



SMB				
DIM	INC HES		MM	
	MIN	MAX	MIN	MAX
A	0.16	0.19	4	4.8
B	0.13	0.15	3.3	3.9
C	0.08	0.10	2	2.5
D	0.18	0.22	4.5	5.5
E	0.03	0.06	0.7	1.5
F	0.06	0.10	1.5	2.5



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