



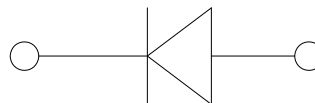
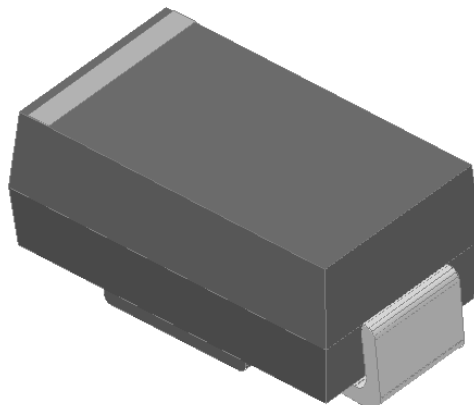
Express recovery diode
Reverse Voltage 50V-600v
Forward current-5A

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	Unit
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 $T_L = 100^\circ\text{C}$	$I_{O(AV)}$	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, $T_J = 25^\circ\text{C}$		240.0	A
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$, $T_J = 25^\circ\text{C}$, Rating of per diode	I^2t	59.8	A^2S
Maximum Forward Voltage at 5.0A DC	V_{FM}	1.7	V
Maximum Reverse Current $T_A = 25^\circ\text{C}$	IR	5.0	μA
at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$		100.0	
Maximum reverse recovery time	T_{rr}	35.0	ns
Typical Thermal Resistance Between junction and	R_{QJA}	65.0	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to $+150$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to $+150$	$^\circ\text{C}$



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

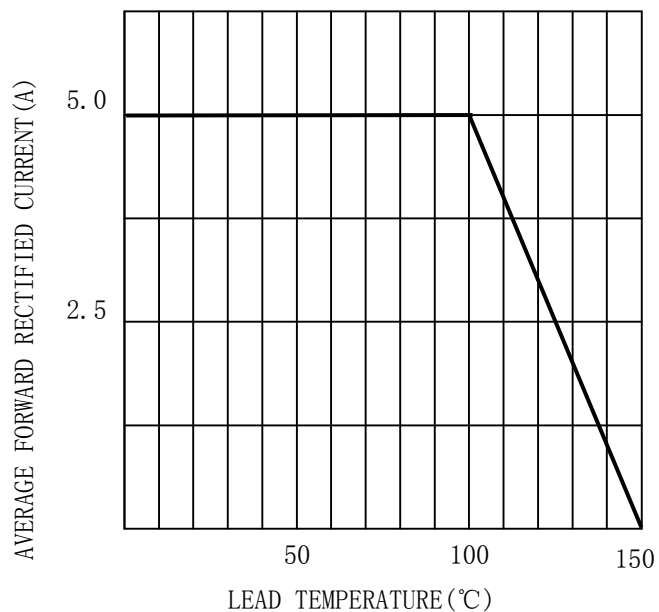


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

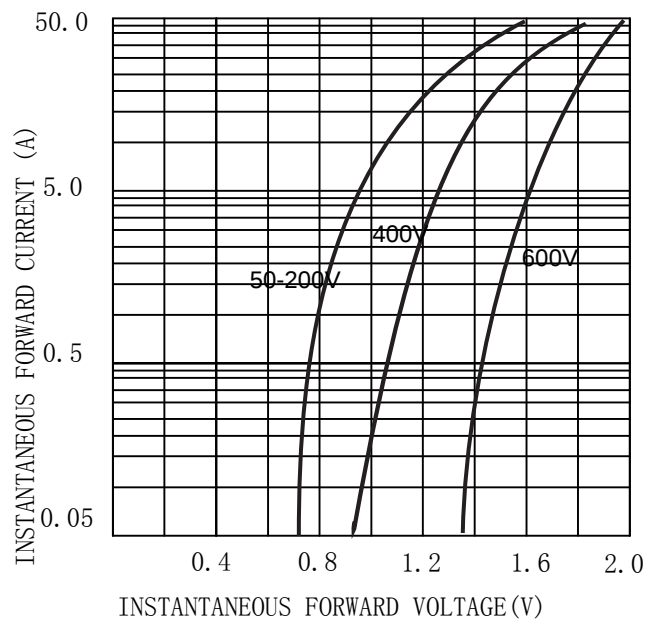


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

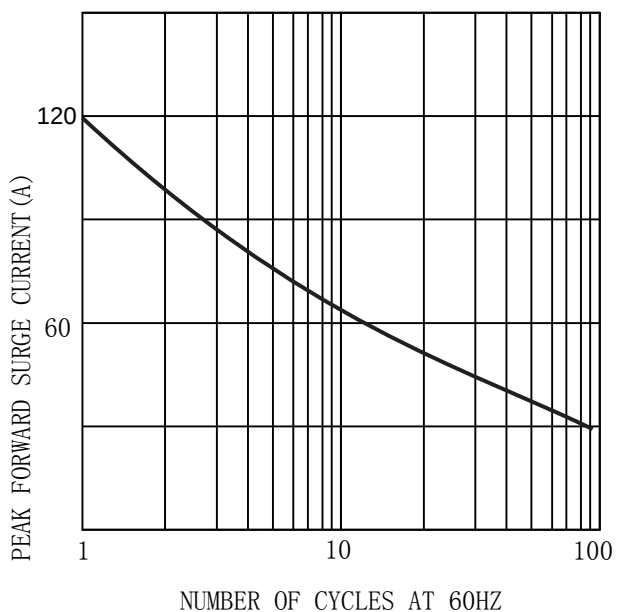
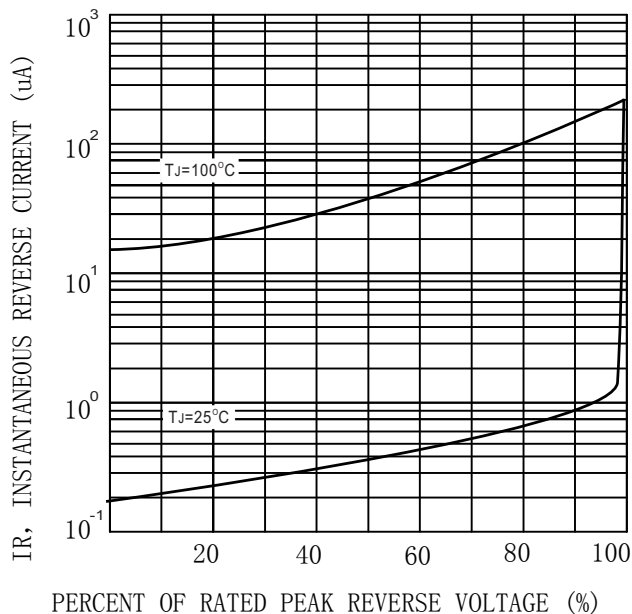


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



 = Logo

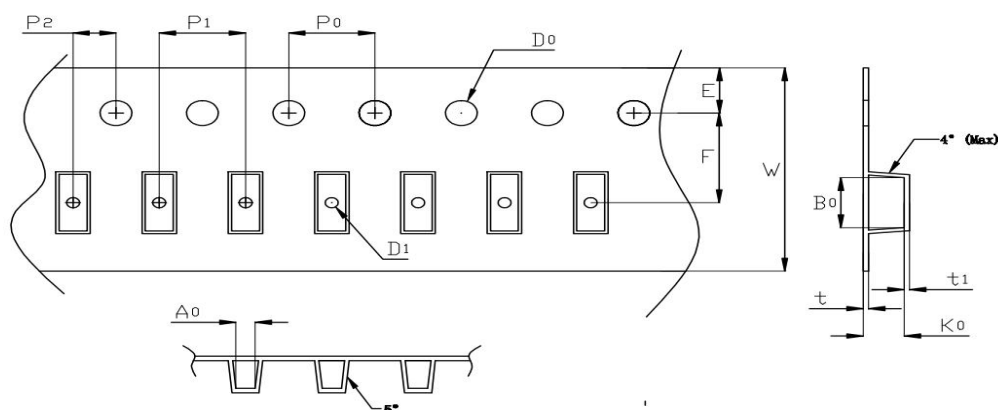
**** = Date Code Marking

ES3* = Marking Code

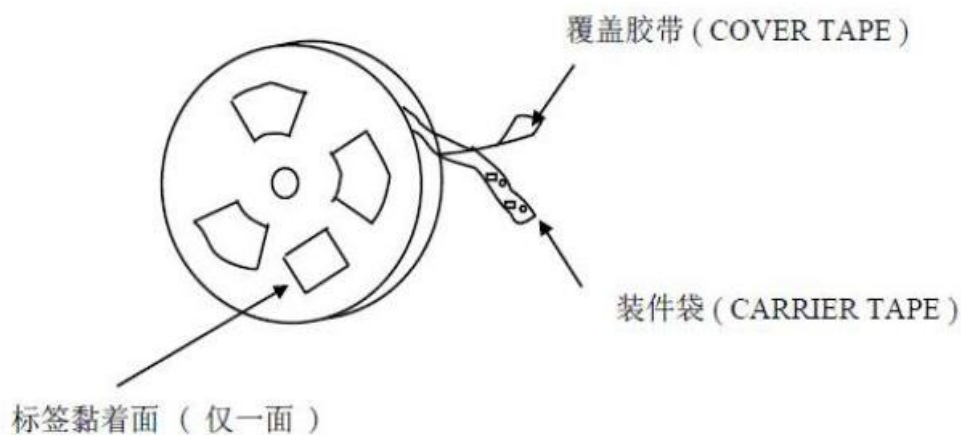
Print according to customer request

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	

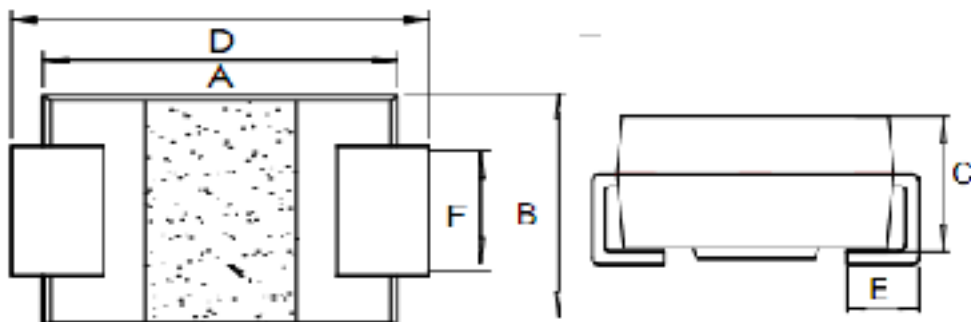


DEVICE TYPE	Tape width	13"Reel		
		Q'TY/REEL (pcs)	BOX/CARTOON	Q'TY/REEL (pcs)
SMB	12mm	3000	20	60000



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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