



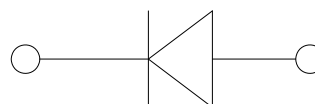
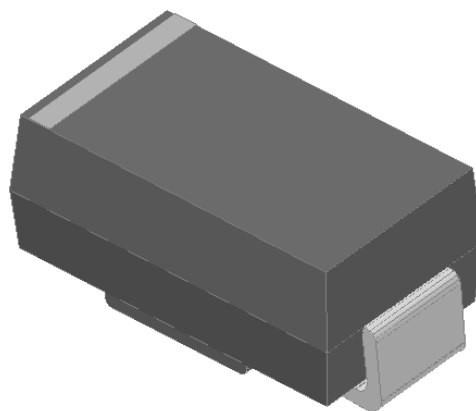
Express recovery diode
Reverse Voltage 800v
Forward current-3A

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	ES3K	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	800	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 ² S
Maximum Forward Voltage at 3.0A DC	V_{FM}	2.1	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 ambient	R_{QJa}	50.0	°C/W
Operating Junction Temperature Range	Tj	—55to+150	°C
Storage Temperature Range	TSTG	—55to+150	°C



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

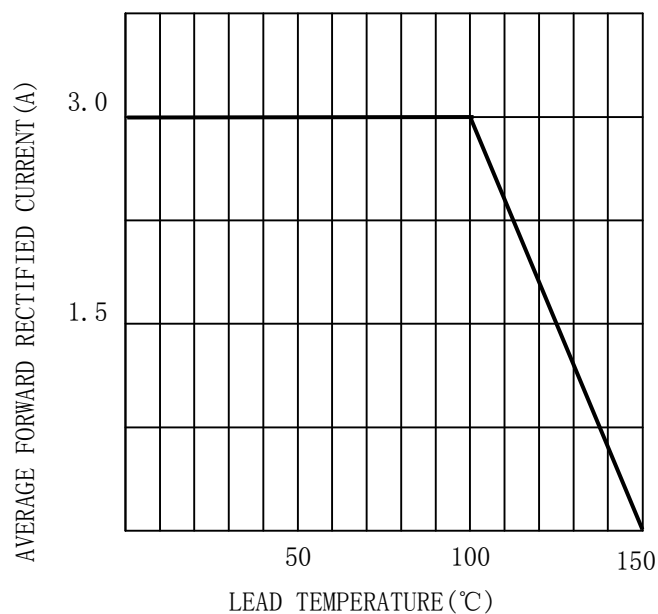


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

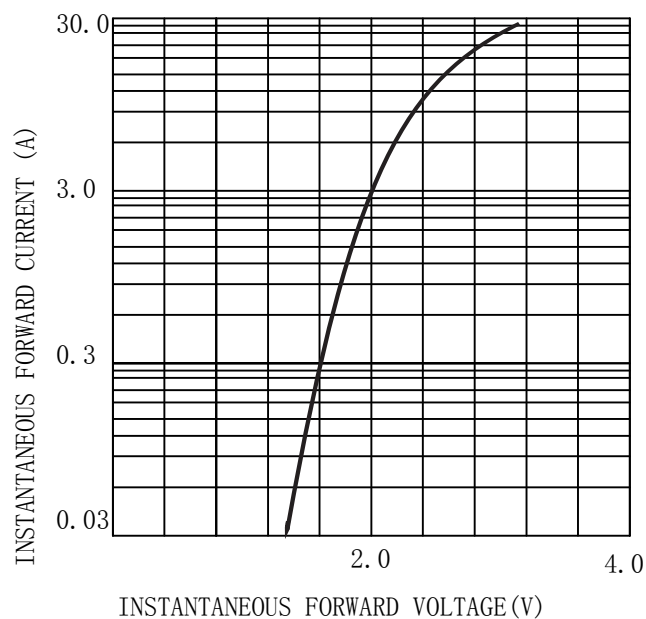


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

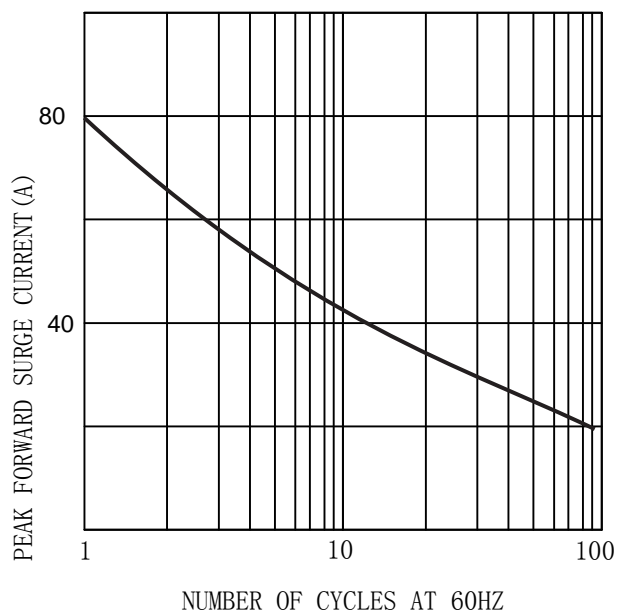
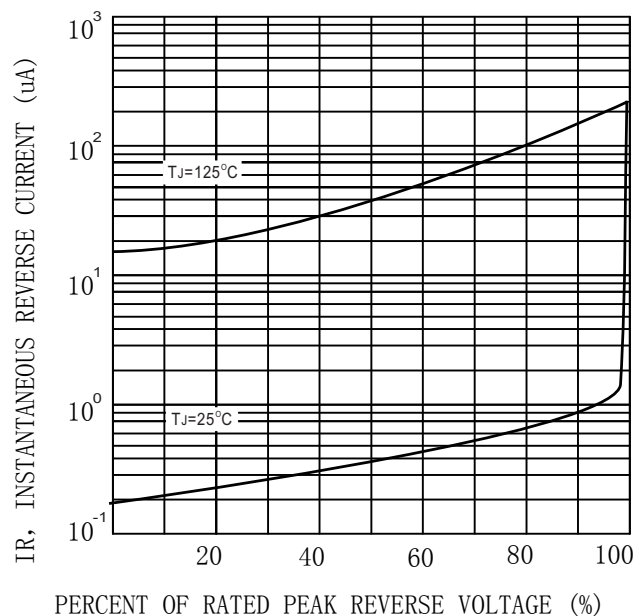
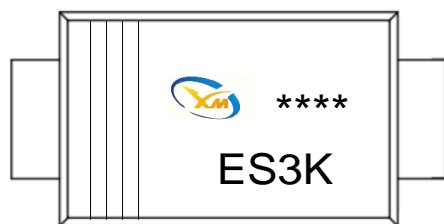



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



 = Logo

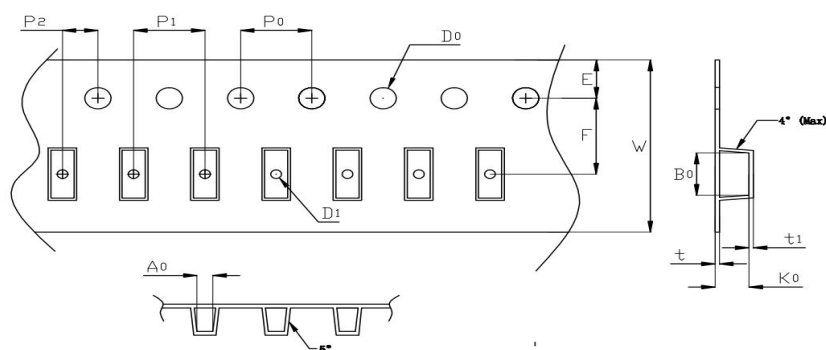
**** = Date Code Marking

ES3K = Marking Code

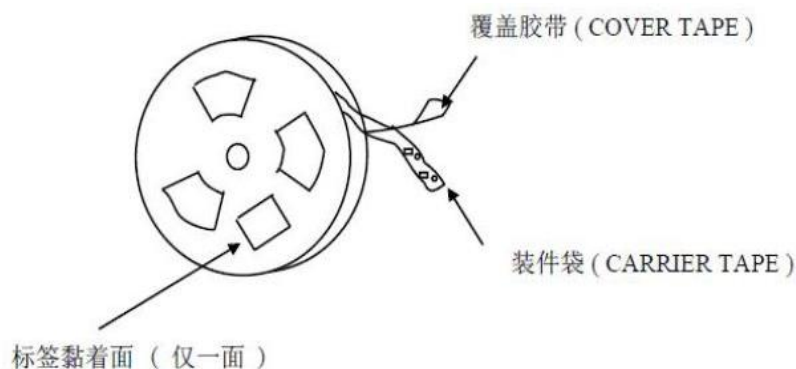
Print according to customer request

PACKING REQUIRMENTS

• Carrier tape packing



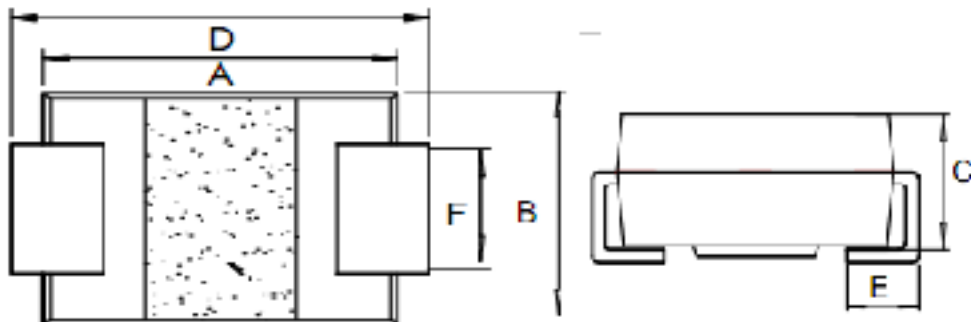
Specifications	Carrier tape type	Ao	Bo	Ko	Po	W	t	Explain
SMC	Anti-static	6.05 ± 0.1	8.31 ± 0.1	2.54 ± 0.1	3.98 ± 0.05	15.95 ± 0.05	0.23 ± 0.02	



DEVICE TYPE	Tape width	Reel		
		Q'TY/REEL (pcs)	BOX/CARTOON	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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