



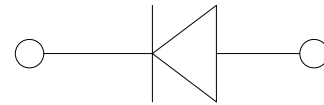
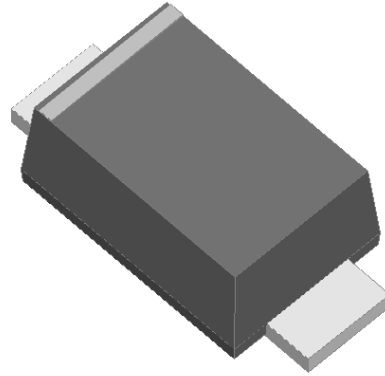
**Express recovery diode**  
**Reverse Voltage 50V-600v**  
**Forward current-1A**

**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: SMAF
- 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	ES1						Umit
		AF	BF	DF	GF	JF		
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°C		50.0						A
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	$i^2t$	2.6						A <sup>2</sup> S
Maximum Forward Voltage at 1.0A 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	$R_{QJa}$	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

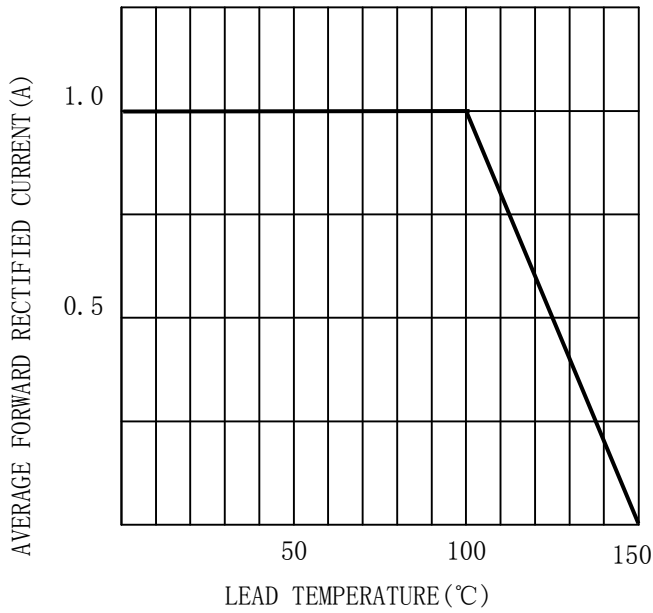


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

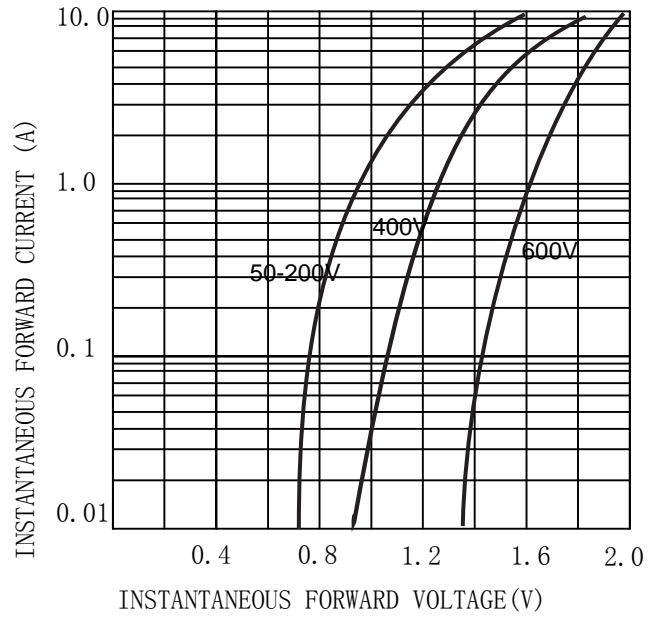


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

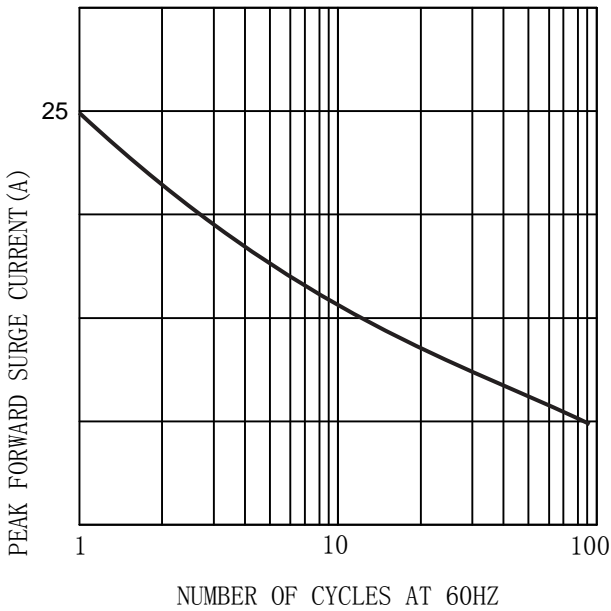
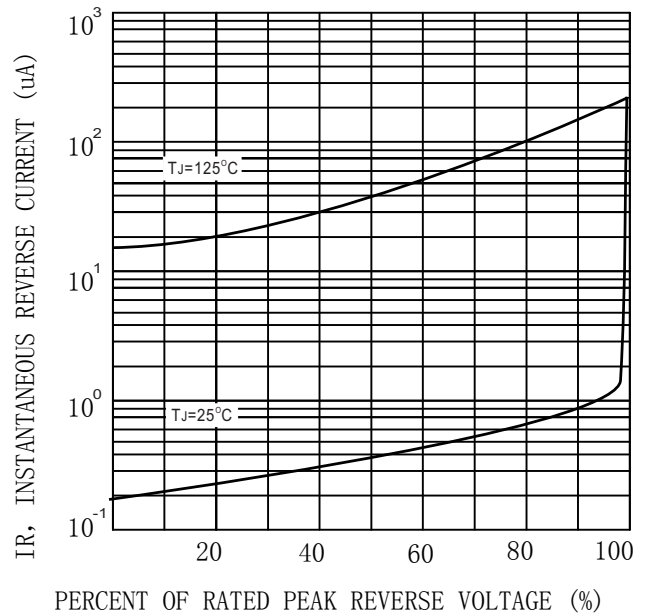



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





## MARKING INFORMATION



 = Logo

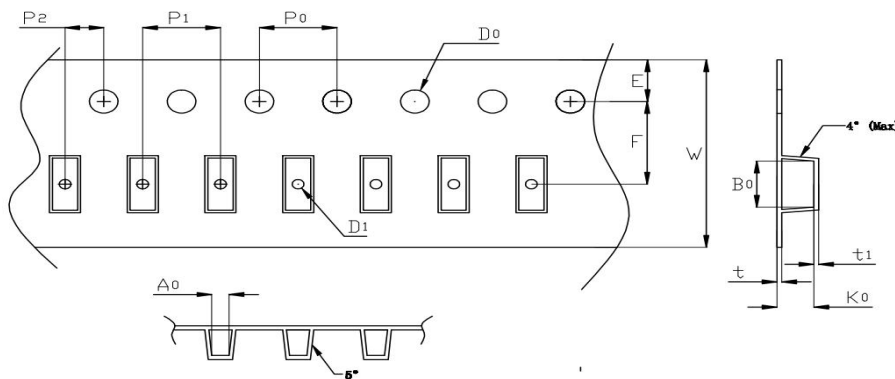
\*\*\*\* = Date Code Marking

ES1\* = Marking Code

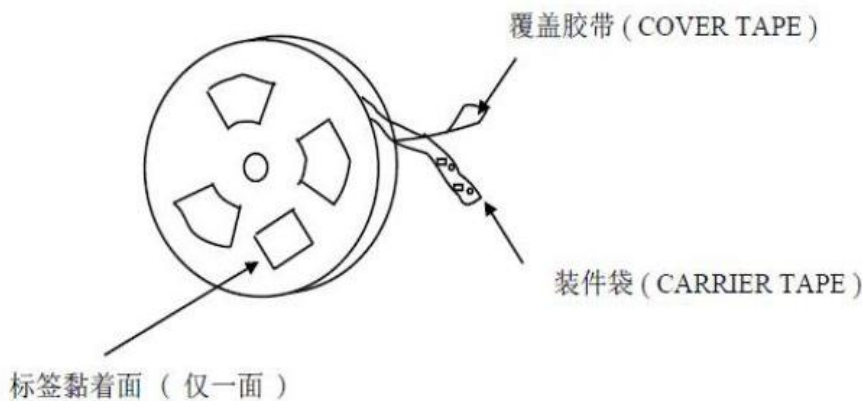
Print according to customer request

## PACKING REQUIRMENTS

- Carrier tape packing



Specifications	Carrier tape type	Ao	Bo	Ko	Po	W	t	Explain
SMAF	Anti-static	2.83± 0.10	4.9± 0.10	1.45± 0.05	4.00± 0.10	12.0± 0.10	0.23± 0.05	

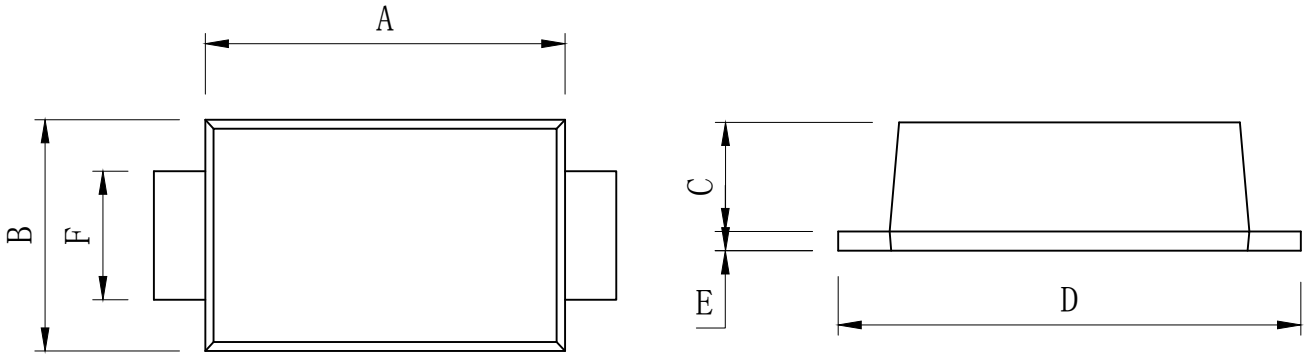


DEVICE TYPE	Tape width	13"Reel			7"Reel		
		Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)	Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)
SMAF	12mm	10000	20	200000	3000	64	192000



## Outline Dimensions

### SMAF



SMAF				
DIM	INC HES		MM	
	MIN	MAX	MIN	MAX
A	0.13	0.15	3.2	3.8
B	0.09	0.11	2.3	2.7
C	0.03	0.05	0.8	1.2
D	0.16	0.20	4	5
E	/	0.01	/	0.3
F	0.04	0.08	1	2



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