

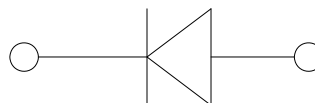
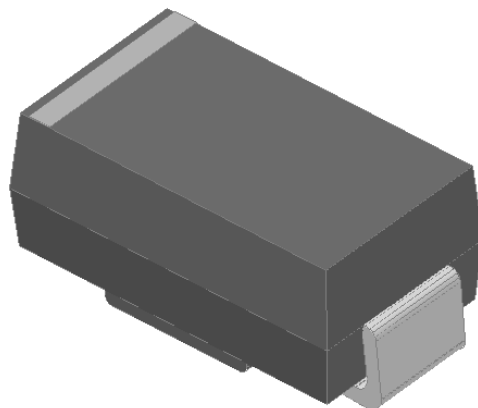


US1A THRU US1M

Ultrafast recovery Rectifier diode
Reverse Voltage 50V-1000v
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: SMA
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	US1							
		A	B	D	G	J	K	M	Umit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at TL = 100 °C	I _{O(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≤t8.3≤ms Tj=25°C , Rating of per diode	I²t	2.6							A²S
Maximum Forward Voltage at 1.0A DC	V _{FM}	1.0			1.3	1.7			V
Maximum Reverse Current TA = 25 °C	IR	5.0							µA
at Rated DC Blocking Voltage TA = 100 °C		100.0							
Maximum reverse recovery time	Trr	50.0				75.0			ns
Typical Thermal Resistance Between junction and ambient	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

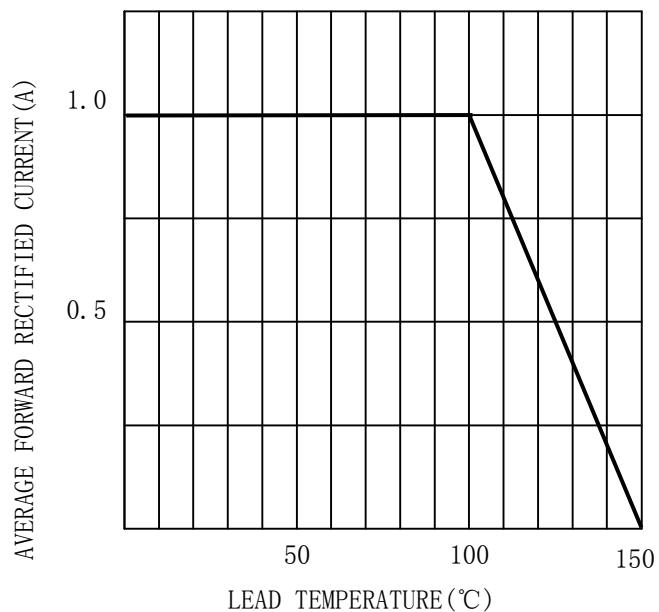


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

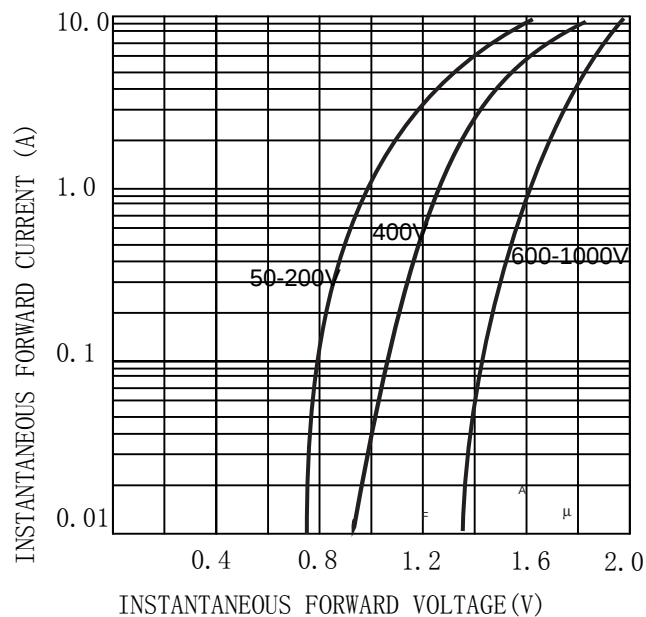


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

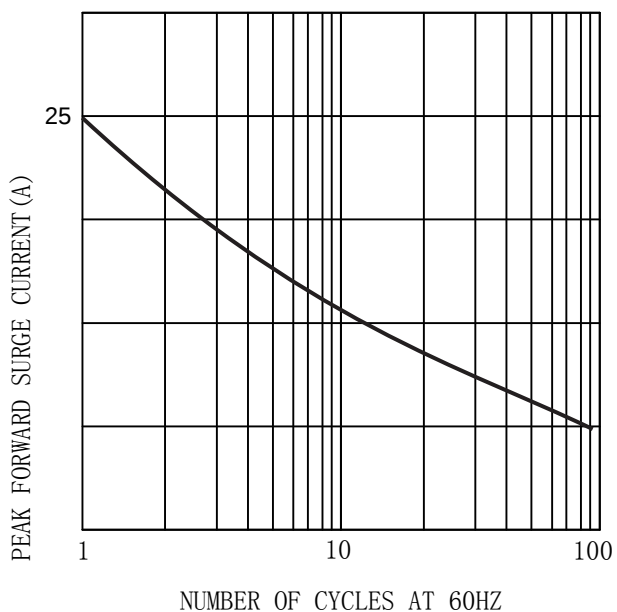
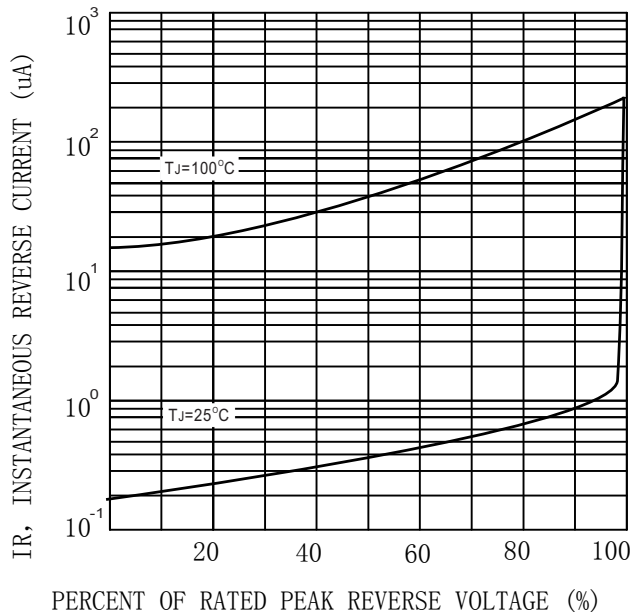


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



 = Logo

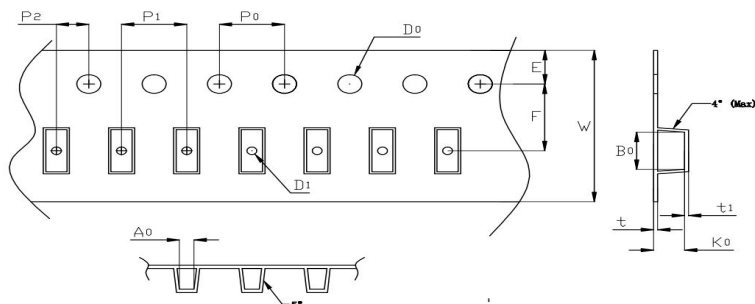
**** = Date Code Marking

US1* = Marking Code

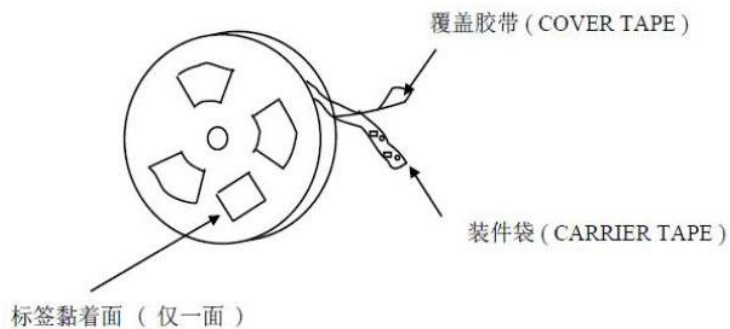
Print according to customer request

PACKING REQUIRMENTS

- Carrier tape packing



Specificati ons	Carrier tape type	Ao	Bo	Ko	Po	W	t	Explain
SMA	Anti-static	2.65± 0.10	5.20± 0.10	2.30± 0.10	4.00± 0.10	12.0± 0.10	0.20± 0.05	

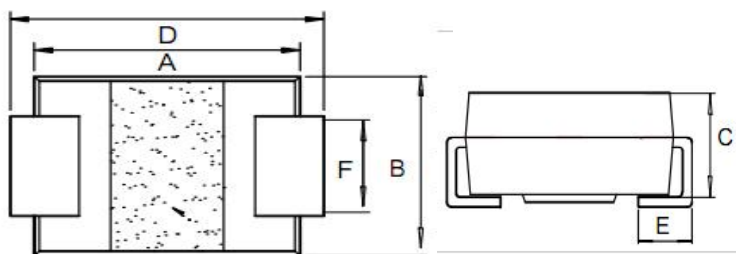


DEVICE TYPE	Tape width	11"Reel			11"Reel		
		Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)	Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)
SMA	12mm	5000	20	100000	5000	18	90000



Outline Dimensions

SMA



SMA				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.16	0.18	4.05	4.65
B	0.09	0.11	2.4	2.8
C	0.07	0.09	1.8	2.3
D	0.18	0.21	4.67	5.27
E	0.04	0.06	1	1.4
F	0.05	0.06	1.2	1.6



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