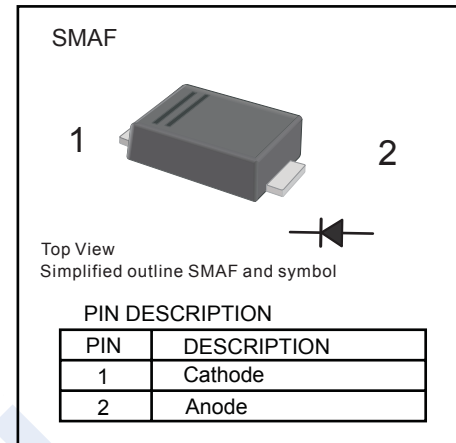


Ultrafast Recovery Rectifier

US2AF ~ US2MF

■ Features

- Reverse Voltage - 50 to 1000 V
- Forward Current - 2 A
- For Surface Mounted Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Easy to Pick and Place
- High efficiency



■ Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	US2MF	Unit
Maximum Repetitive 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	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current at $T_c=125^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							
Maximum Forward Voltage at 2 A	V_F	1.0			1.3	1.65			V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=125^\circ\text{C}$	I_R	5				100			μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50				75			ns
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	65						$^\circ\text{C}/\text{W}$	
	$R_{\theta JC}$	20							
Junction Temperature	T_j	150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150							

Notes: 1. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

■ Marking

NO.	US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	US2MF
Marking	US2A	US2B	US2D	US2G	US2J	US2K	US2M

Ultrafast Recovery Rectifier

US2AF ~ US2MF

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

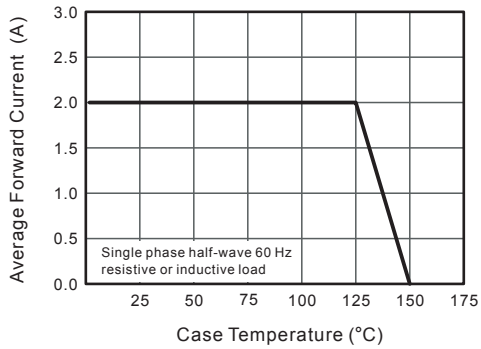


Fig.2 Typical Reverse Characteristics

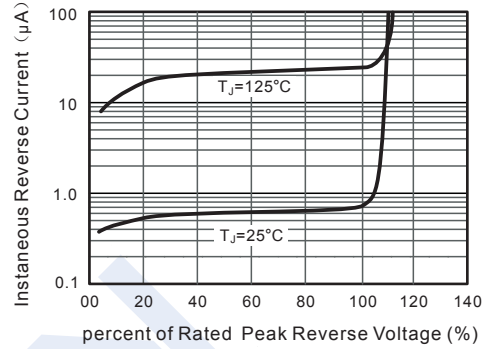


Fig.3 Typical Forward Characteristics

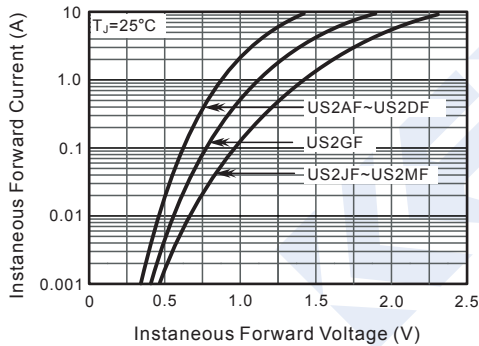
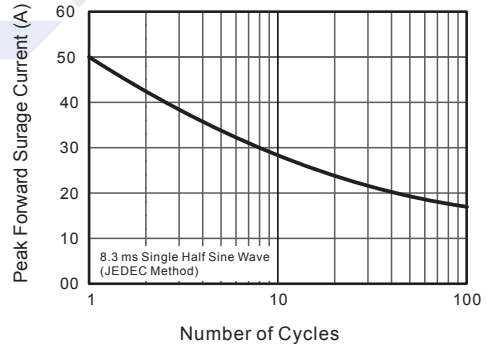


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



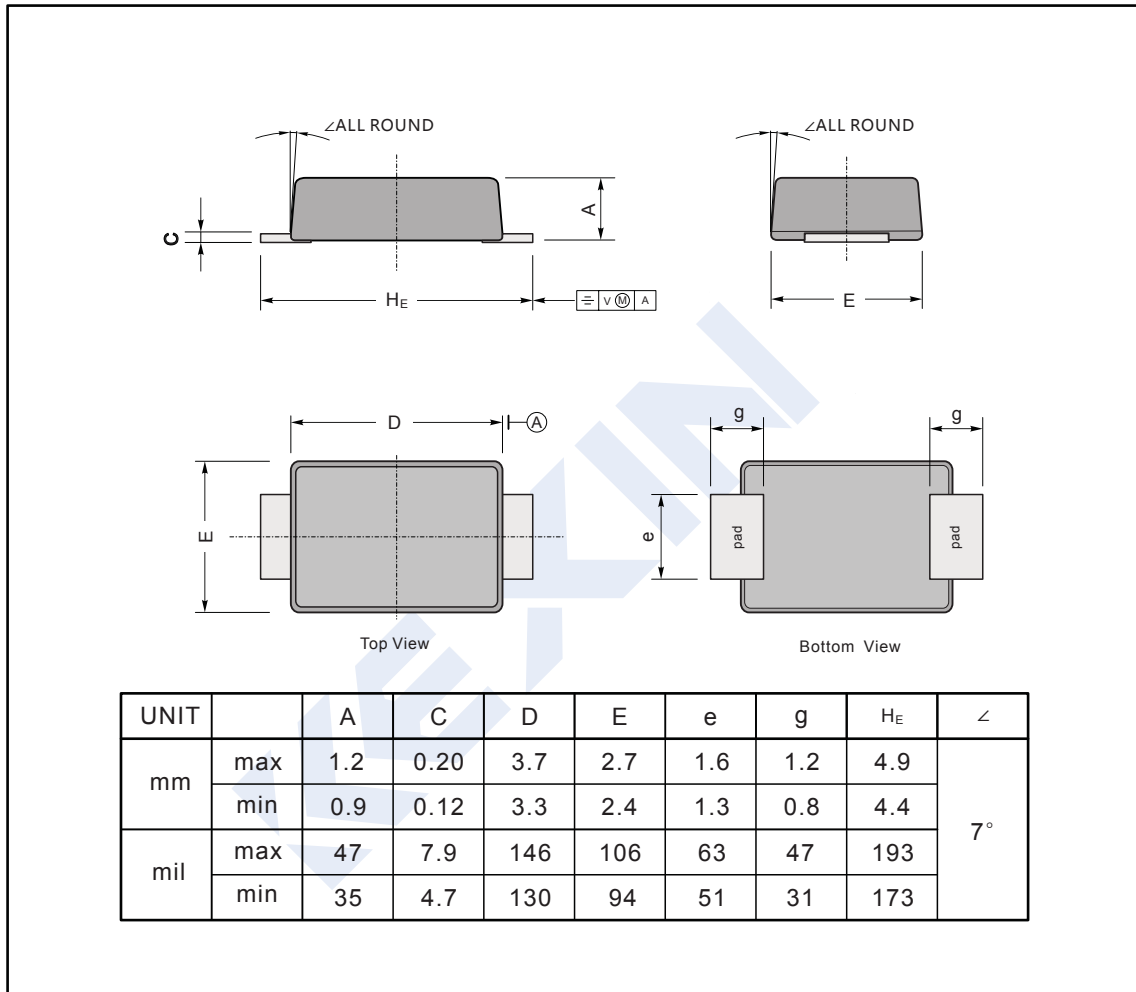
Ultrafast Recovery Rectifier

US2AF ~ US2MF

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMAF



■ The recommended mounting pad size

