

Features

- For surface mount applications
- Glass passivated chip junction
- High Efficiency

SMAF



1.Cathode  2.Anode

Marking Code:

US3AF-TN: US3A
 US3BF-TN: US3B
 US3DF-TN: US3D
 US3GF-TN: US3G
 US3JF-TN: US3J
 US3KF-TN: US3K
 US3MF-TN: US3M

Maximum Ratings and Electrical Characteristics

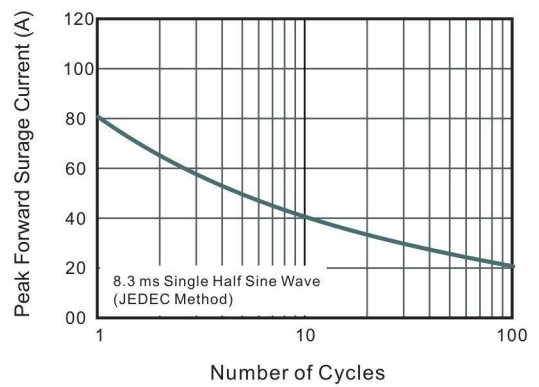
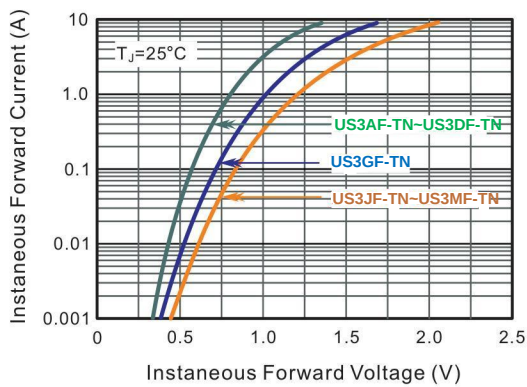
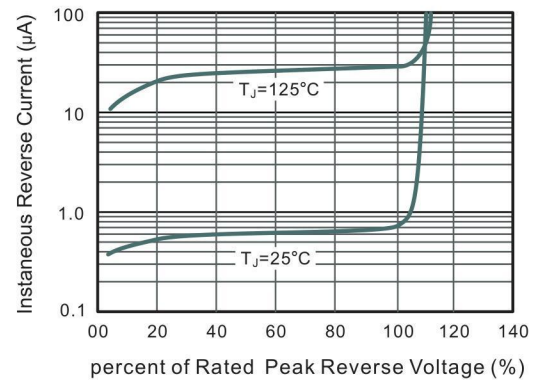
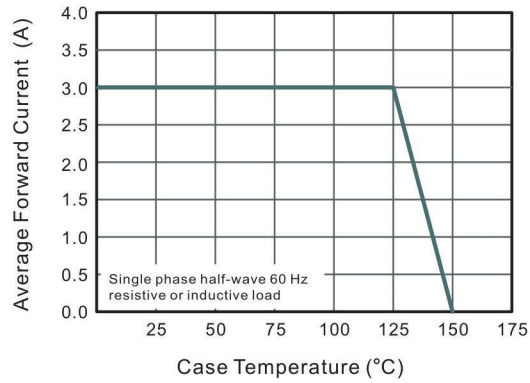
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	US3AF–TN	US3BF–TN	US3DF–TN	US3GF–TN	US3JF–TN	US3KF–TN	US3MF–TN	Units
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	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _C =125°C	I _{F(AV)}	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	80							A
Maximum Instantaneous Forward Voltage at 3 A	V _F	1.0			1.3	1.68			V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25 °C T _A = 125 °C	I _R	5 100							μA
Typical Thermal Resistance ^{Note1}	R _{θJA} R _{θJC}	50 16							°C/W
Maximum Reverse Recovery Time ^{Note2}	T _{rr}	50				75			nS
Junction Temperature	T _J	150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Note:

1. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
2. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$

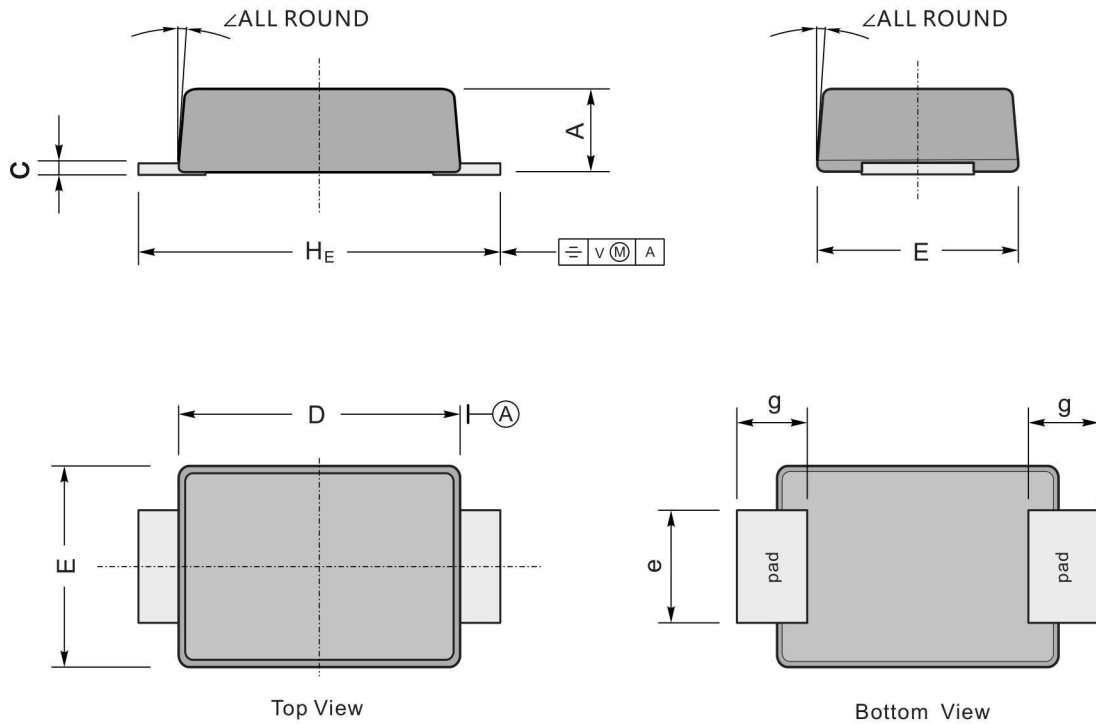
Typical Characteristic Curves



Package Outline

SMAF

Dimensions in mm



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	