



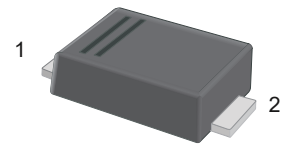
US3AF-PJ~US3MF-PJ

Surface Ultrafast Recovery Rectifiers

Features

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

SMAF



1.Cathode  2.Anode

Marking Code:

US3AF-PJ: US3A
 US3BF-PJ: US3B
 US3DF-PJ: US3D
 US3GF-PJ: US3G
 US3JF-PJ: US3J
 US3KF-PJ: US3K
 US3MF-PJ: 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-PJ	US3BF-PJ	US3DF-PJ	US3GF-PJ	US3JF-PJ	US3KF-PJ	US3MF-PJ	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 $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	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 $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	5 100							μA
Typical Thermal Resistance ^{Note1}	$R_{\theta JA}$ $R_{\theta JC}$	50 16							$^\circ\text{C/W}$
Maximum Reverse Recovery Time ^{Note2}	T_{rr}	50				75			nS
Junction Temperature	T_J	150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note:

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



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Typical Characteristic Curves

