

SURFACE MOUNT ULTRA FAST RECTIFIER US1AB THRU US1MB

VOLTAGE RANGE Forward Current 50 to 1000 Volts 1.0 Amperes

FEATURES

- Fast surface mounted applications
- Glass passivated junction.
- Ultra –Fast recovery time for high efficiency.
- Plastic package has underwrites laboratory flammability classification 94v-0
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals tension.

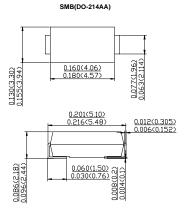
MECHANICAL DATA

• Case: molded plastic

• Polarity: band indicate cathode.

Mounting Position: Any.

• Weight: 0.064 grams



Dimensions in inches and (millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SYMBOLS	US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	UNITS
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, at $T_A \!\!=\!\! 50^{\circ}\! C$		$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		$V_{\scriptscriptstyle F}$	1.0 1.3 1.7					Volts		
Maximum DC Reverse Current at rated DC blocking voltage at	T _A =25 °C T _A =125 °C	I_R	10 50					μА		
Maximum Reverse Recovery Time (Note 1)		T_{RR}	50 75					nS		
Typical Junction Capacitance (Note 2)		$C_{\rm J}$	15							PF
Maximum Thermal Resistance (Note 3)		R_{QJL}	75							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +175							°C

NOTES:

1. Reverse recovery test condition, I_F =0.5A I_R =1.0A I_{RR} =0.25A.

2.Measured at 1MHZ and applied reverse voltage of 4.0 volts.

3.Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.

MA

US

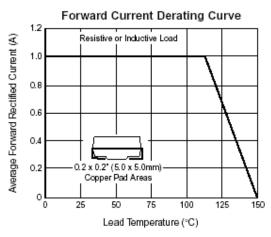


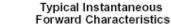
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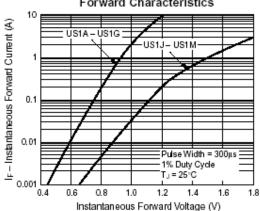
VOLTAGE RANGEForward Current

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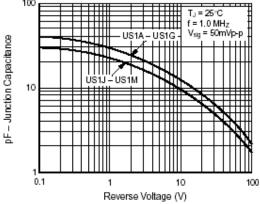
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)



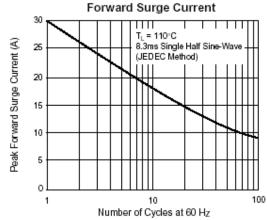




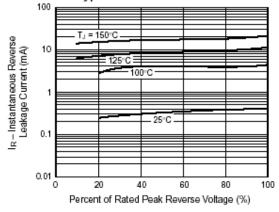
Typical Junction Capacitance



Maximum Non-Repetitive Peak



Typical Reverse Characteristics



Typical Transient

