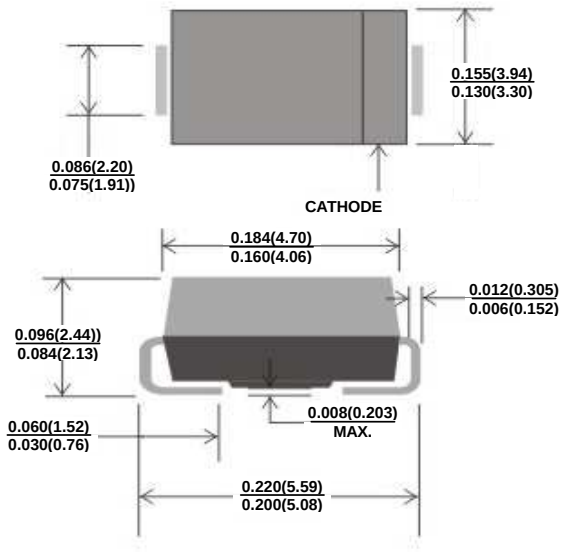
US1AB THRU US1MB

SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- Pb free product : 99% Sn above can meet RoHS environment substance directive request
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:260℃/10 seco nds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA, Molded plastic
Terminals: Solderable per MIL-STD-750，Method 2026
Approx. Weight: 0.005 ounce, 0.138 grams
Polarity: Color band denotes cathode end
Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	*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
Minimum Reverse Breakdown Voltage	V_R	50	100	200	400	600	800	1000	Volts
Average Rectified current at T_L =55℃	$I_{(AV)}$	1.0							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum Forward Voltage at IF=1.0A	V_F	1.0			1.3	1.7			Volts
Maximum DC reverse current T_A= 25 ℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				70			nS
Typical Junction Capacitance (NOTE 2)	C_J	15							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	50							℃/W
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-55 ～ +150							℃

Note: 1. Reverse recovery condition IF=0.5A,IR=1.0A,Irr=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Mounted with minimum recommended padsize，PCBoard FR4.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

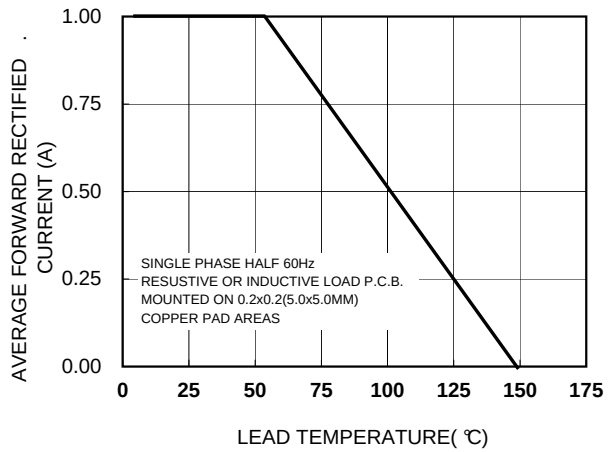

FIG. 2-TYPICAL JUNCTION RATINGS

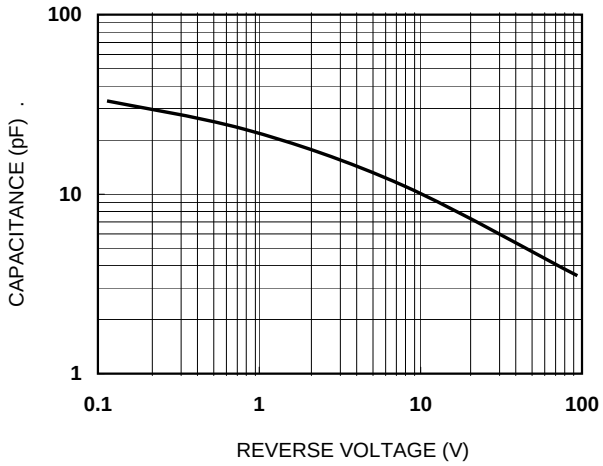

FIG. 3-TYPICAL REVERSE CHARACTERISTICS

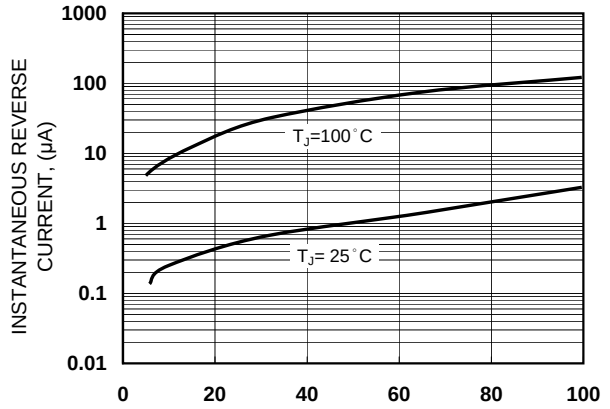

FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS