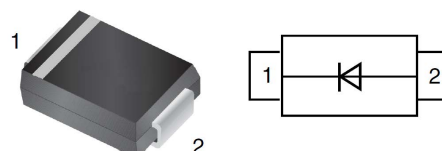


Ultra-Fast Rectifier in DO-214AA/SMB

Features

- Ultra-Fast Recovery Time for High Efficiency
- Glass passivated junction chip
- Built-in strain relief, ideal for automated placement
- High Current Capability



Mechanical Data

- **Case:** JEDEC DO-214AA(SMB)molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

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 current derate by 20%.									
Parameter	Symbols	US5AB	US5BB	US5DB	US5GB	US5JB	US5KB	US5MB	Units
	Marking	US5A	US5B	US5D	US5G	US5J	US5K	US5M	
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 (See Fig.1)	I _(AV)	5.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100.0							A
Maximum instantaneous forward voltage @ 5.0A DC	V _F	1.0			1.3	1.68			V
Maximum DC reverse current @T _J =25°C at rated DC blocking voltage @ T _J =125°C	I _R	5.0 100							uA
Maximum reverse recovery time (Note1)	t _{rr}	50				75			ns
Typical junction capacitance (Note 2)	C _J	50							pF
Typical thermal resistance (Note 3)	R _{θJA}	45							°C/W
	R _{θJC}	15							
Operating junction temperature range	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
3. Units Mounted on P.C.B. 2.0" × 2.0" (5X5 cm) Pad Areas

Typical Characteristics ($T_{amb} = 25^\circ\text{C}$ unless otherwise specified)

Fig.2 Maximum Average Forward Current Rating

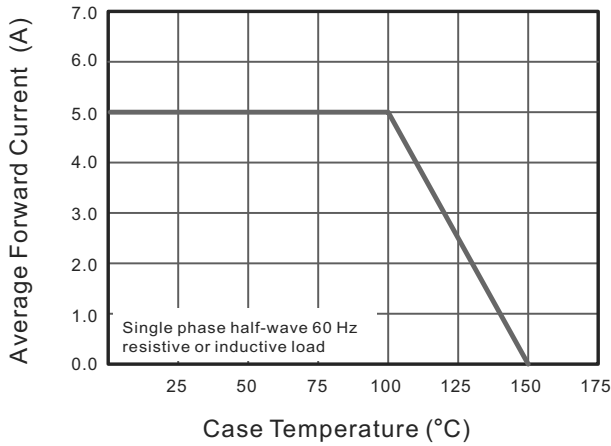


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

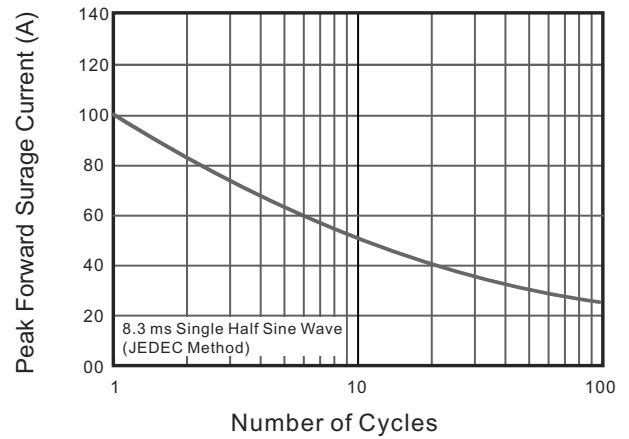


Fig.4 Typical Forward Characteristics

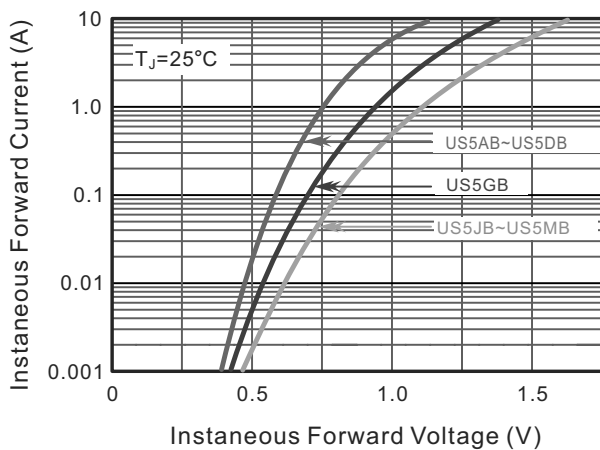
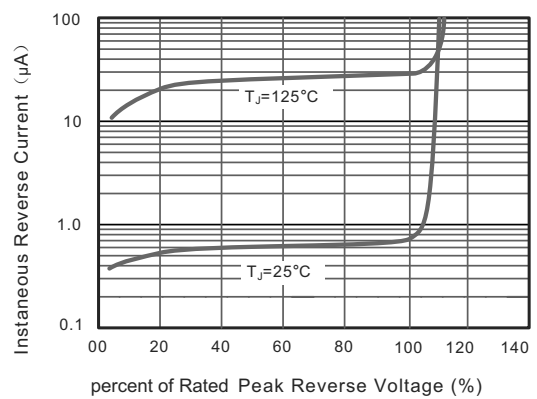
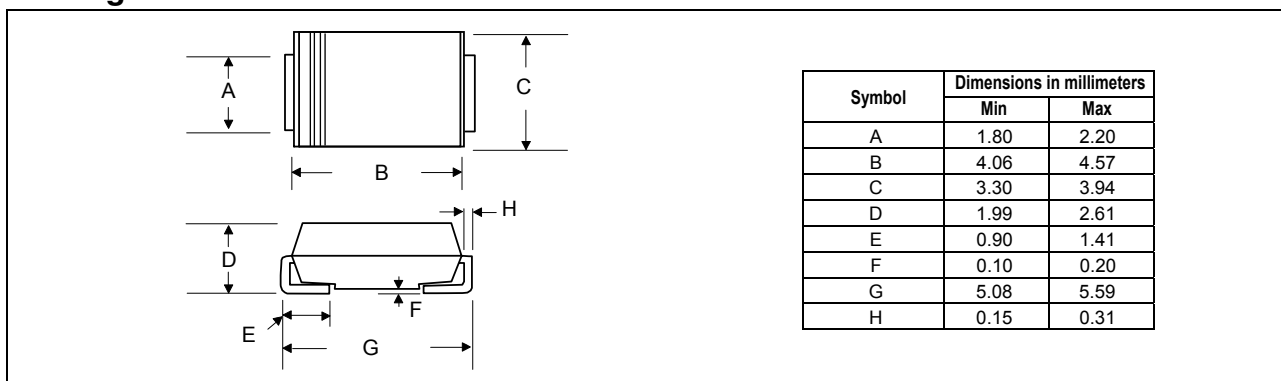


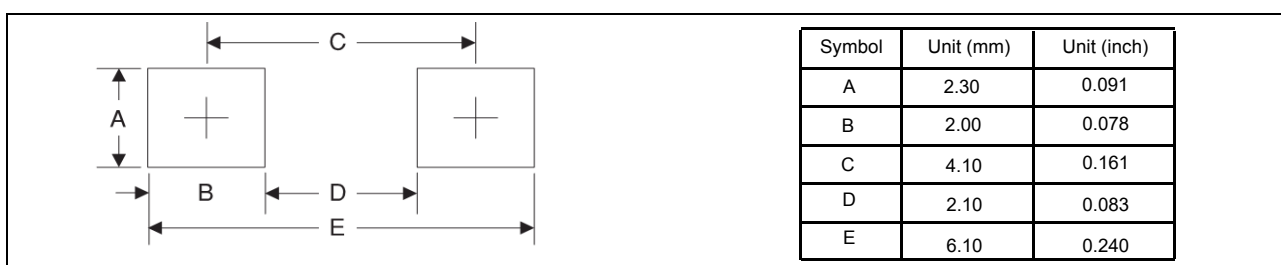
Fig.3 Typical Reverse Characteristics



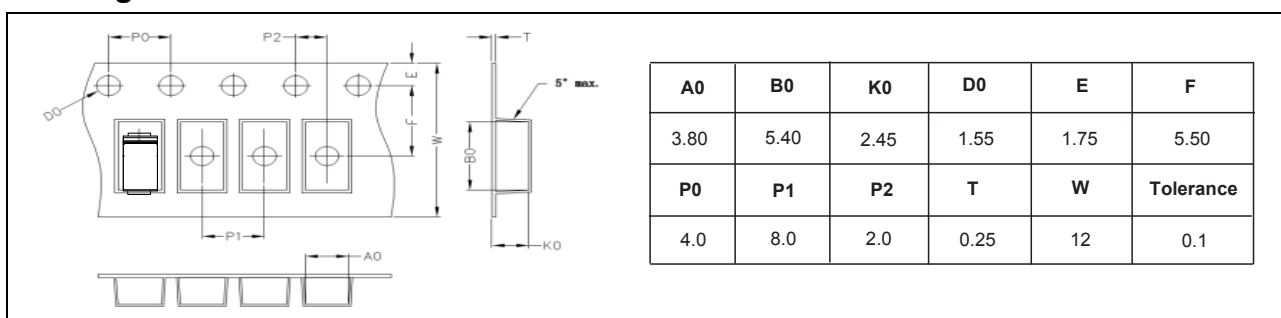
Package Dimensions



PAD Dimensions



Packing Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
US5AB thru US5MB	DO-214AA/SMB	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
22-Feb-2024	4.0	Update

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