

## Surface Mount Rectifiers

## US2AA--US2MA

### FEATURES

- For surface mount applications
- Low profile package
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- Built-in strain relief, ideal for automated placement
- High temperature soldering:250°C/10 seconds on terminals
- Plastic package has underwriters laboratories flammability classification 94V-0



Lead-free



### MECHANICAL DATA

- Case: JEDEC DO-214AC, molded plastic body over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.002 ounces, 0.064 gram

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

Characteristic	Symbol	US2AA	US2BA	US2DA	US2GA	US2JA	US2KA	US2MA	UNITS
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RWS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T <sub>L</sub> =90°C	I <sub>F(AV)</sub>	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							A

### Thermal Characteristics

Characteristic	Symbol	US2AA	US2BA	US2DA	US2GA	US2JA	US2KA	US2MA	UNITS
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	50				30			pF
Maximum thermal resistance (NOTE1)	R <sub>θJA</sub> R <sub>θJL</sub>	50				18			°C/W
Operating temperature range	T <sub>J</sub>	-55----- +150							°C
Storage temperature range	T <sub>STG</sub>	-55----- +150							°C

### Electrical Characteristics (@T<sub>A</sub> = 25°C unless otherwise specified)

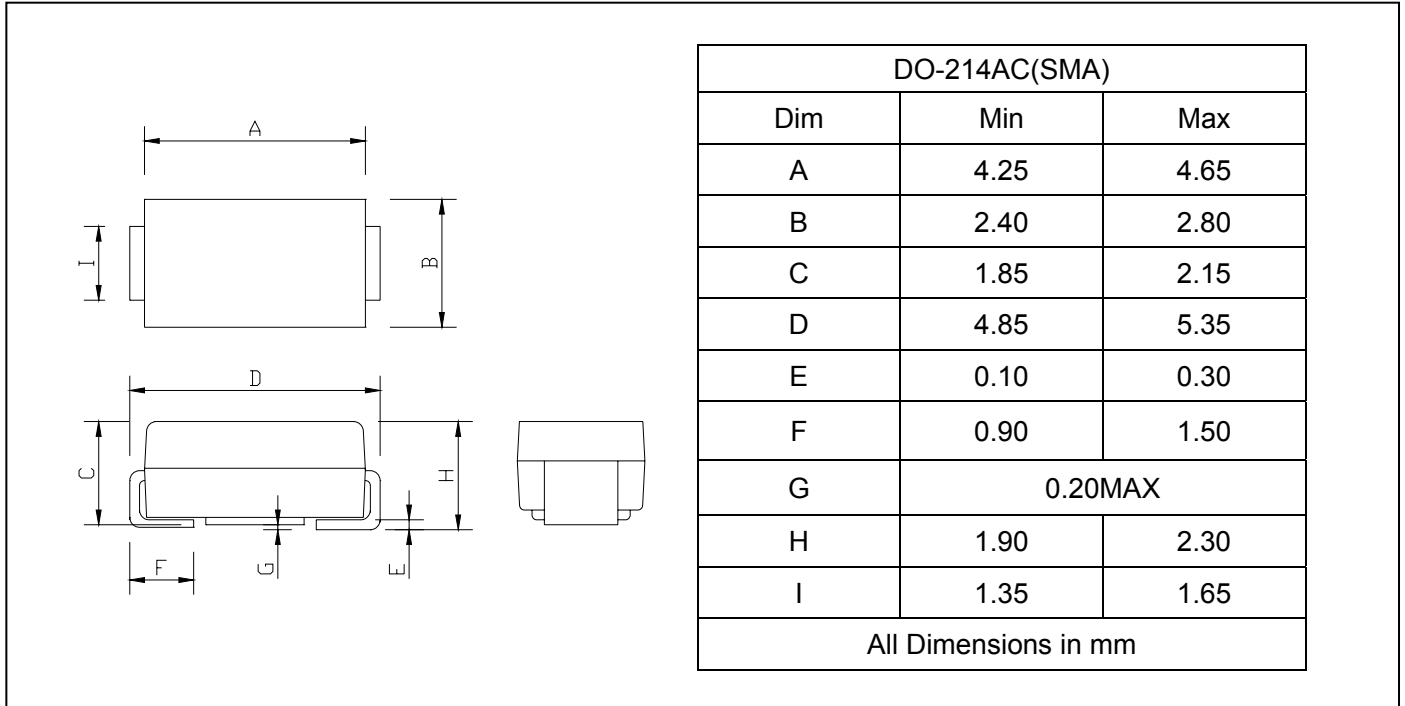
Characteristic	Symbol	US2AA	US2BA	US2DA	US2GA	US2JA	US2KA	US2MA	UNITS
Maximum instantaneous forward voltage at 2.0A	V <sub>F</sub>	1.0			1.25	1.7			V
Maximum DC reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =125°C	I <sub>R</sub>	10.0				350			μA
Maximum reverse recovery time at I <sub>F</sub> =0.5A I <sub>R</sub> =1.0A I <sub>rr</sub> =0.25A	t <sub>rr</sub>	50				75			ns

NOTE: 1.P.C.B.mounted on 0.2X0.2"(5.0X5.0mm) copper pad area

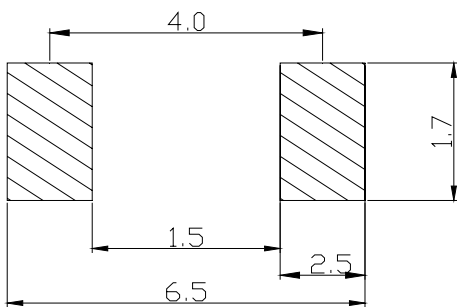
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### PACKAGE OUTLINE DIMENSIONS



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
US2AA--US2MA	DO-214AC(SMA)	5000/Tape&Reel



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FIG.1 -- FORWARD DERATING CURVE

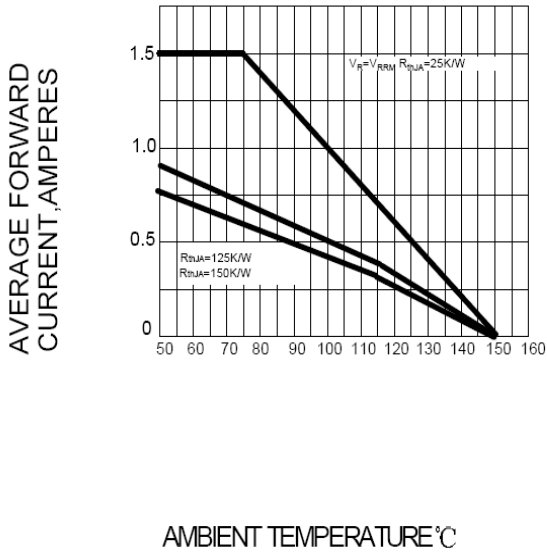


FIG.2--PEAK FORWARD SURGE CURRENT

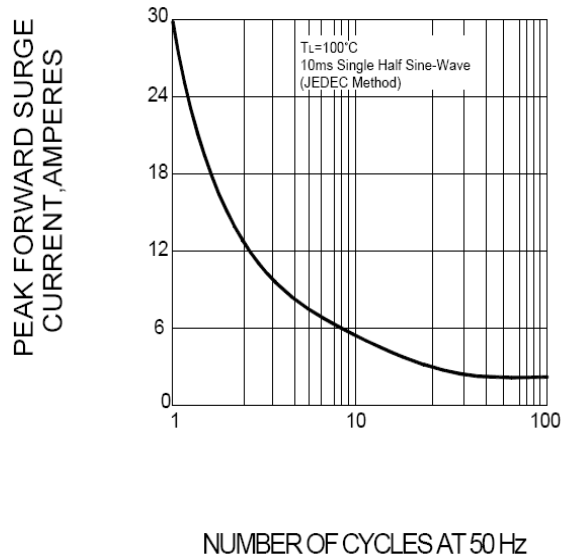


FIG.3 --TYPICAL FORWARD CHARACTERISTIC

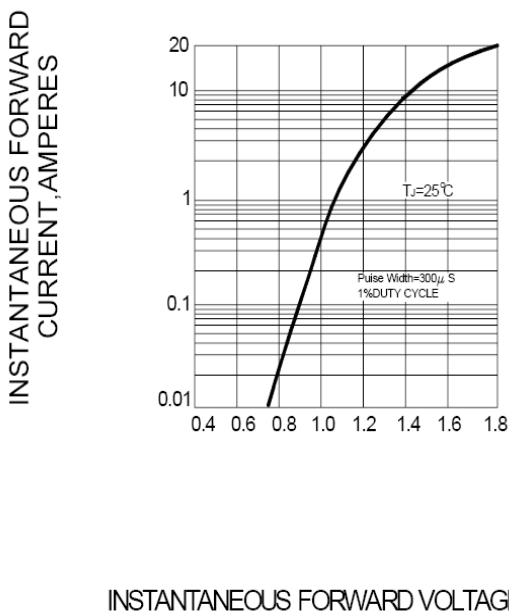


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

