

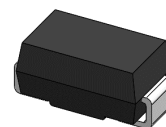
## 2A,50-600V Superfast Rectifiers

### Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds
- AEC-Q101 qualified



**RoHS**  
COMPLIANT



SMA(DO-214AC)

### Applications

For use in secondary rectification and freewheeling for superfast switching speeds of converters in consumer applications.

### Maximum Ratings & Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	AES2AA	AES2BA	AES2CA	AES2DA	AES2FA	AES2GA	AES2JA	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	2							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	50							A
Operating junction temperature range	T <sub>J</sub>	-55 to +150							°C
Storage temperature range	T <sub>STG</sub>	-55 to +150							°C

### Thermal-Mechanical Specifications (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	90	°C /W
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	20	°C /W
Thermal Resistance, Junction to Lead	R <sub>θJL</sub>	25	°C /W



# AES2AA thru AES2JA

GOOD-ARK Electronics

## Electrical Specifications (T<sub>A</sub>=25°C unless otherwise noted)

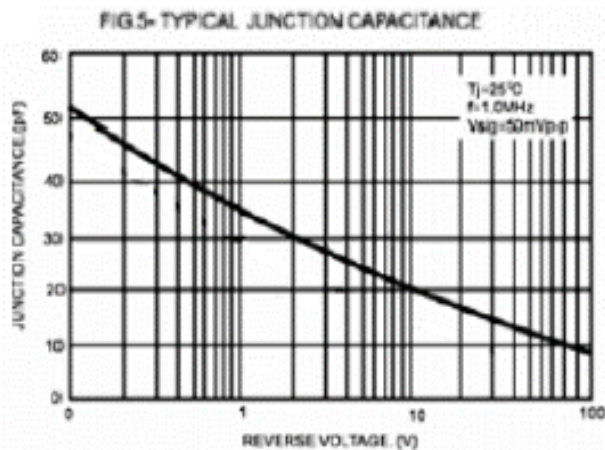
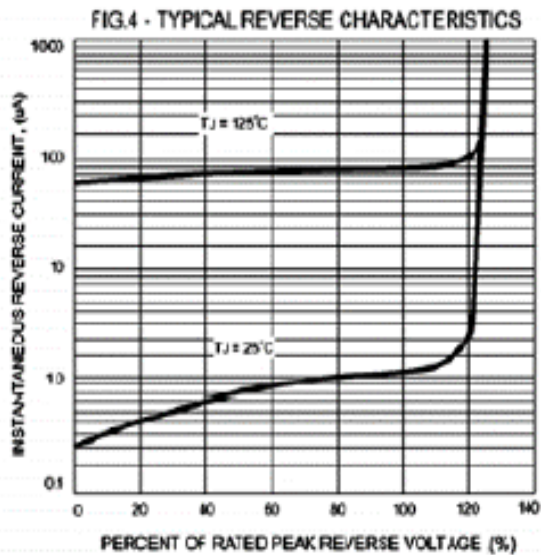
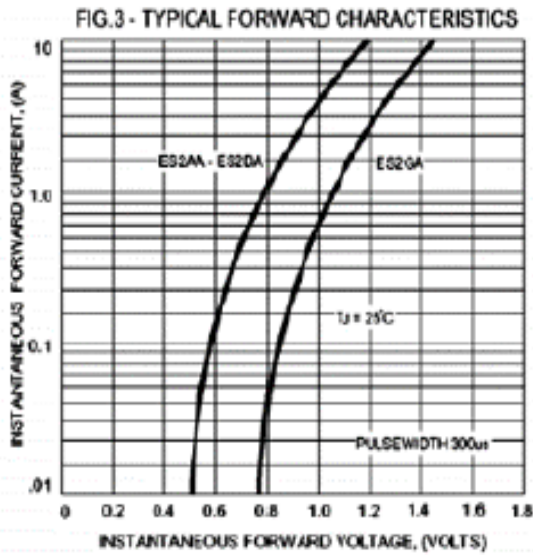
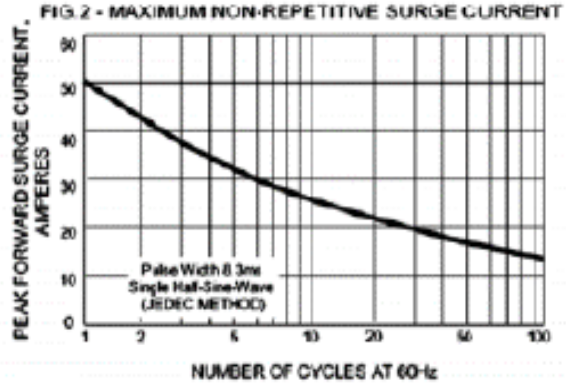
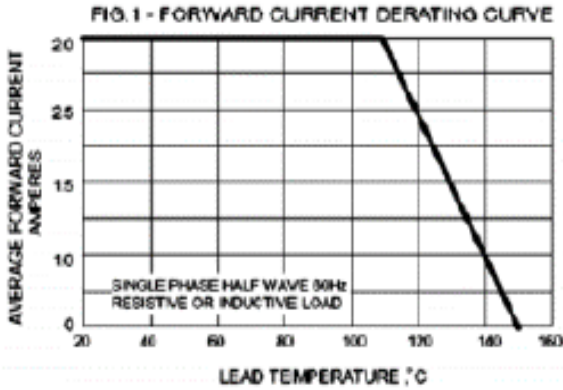
Parameter	Symbol	Test Conditions	AES2AA	AES2BA	AES2CA	AES2DA	AES2FA	AES2GA	AES2JA	Unit
Forward Drop Voltage	V <sub>F</sub>	I <sub>F</sub> =1A T <sub>A</sub> =25°C	0.95				1.30		1.70	V
Reverse leakage current @V <sub>R</sub>	I <sub>R</sub>	T <sub>J</sub> =25°C	5							uA
		T <sub>J</sub> =125°C	350							
Typical junction capacitance	C <sub>J</sub>	4.0 V 1 MHz	25							pF
Maximum reverse recovery time	trr	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	35							nS

Note:

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

## Ratings and Characteristics Curves

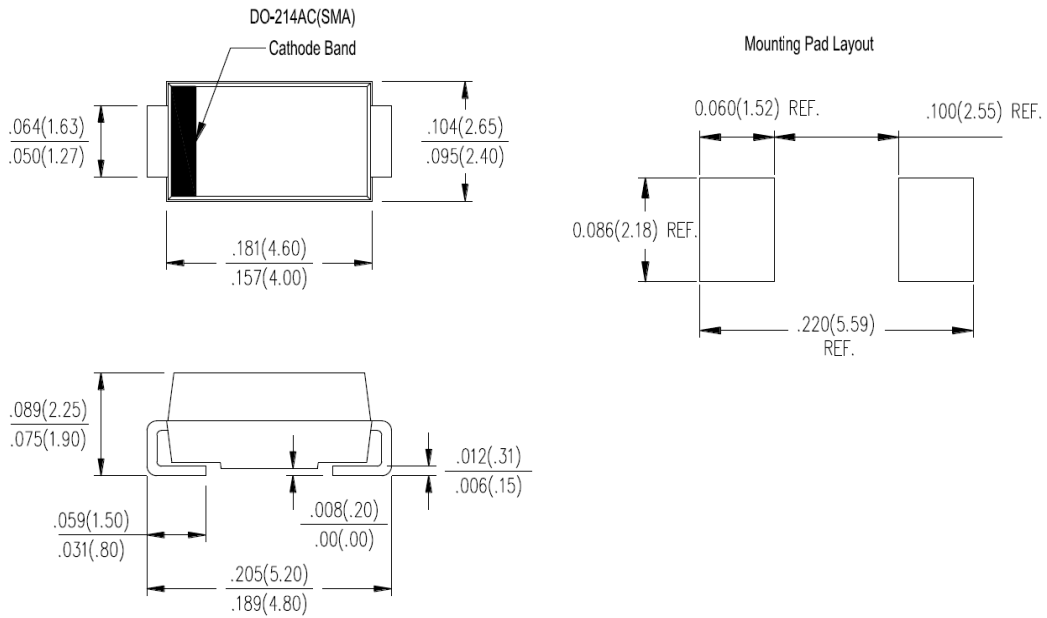
( $T_A = 25^\circ\text{C}$  unless otherwise noted)



## Package Outline Dimensions

in inches (millimeters)

### SMA (DO-214AC)



## Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.10.24	Modify document format

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