

# ES2D-A-18C

## SURFACE MOUNT ULTRAFAST GLASS PASSIVATED RECTIFIER

VOLTAGE: 200V

CURRENT: 2.0A



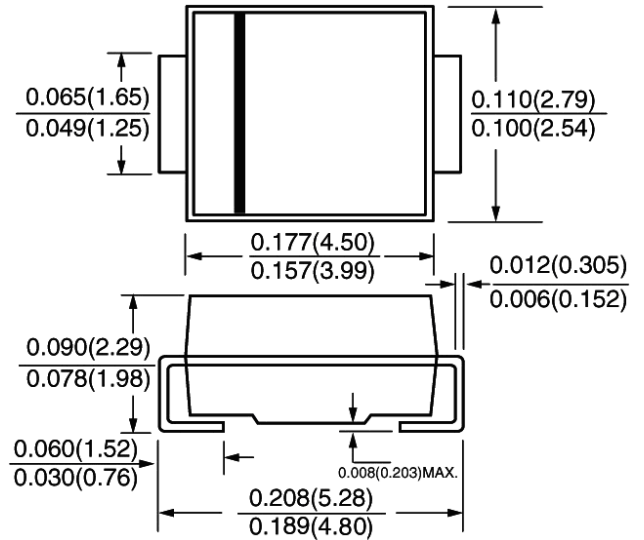
### FEATURE

Ideal for surface mount pick and place application  
Low profile package  
Built-in strain relief  
High surge capability  
High temperature soldering guaranteed  
260°C/10sec/at terminals  
Glass passivated chip  
Ultrafast recovery time for high efficiency  
Qualified to AEC-Q101

### MECHANICAL DATA

Terminal: Solder plated, solderable per J-STD-002  
Case: JEDEC DO-214AC molded plastic body over passivated chip  
Polarity: Color band denotes cathode

### SMA / DO-214AC



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

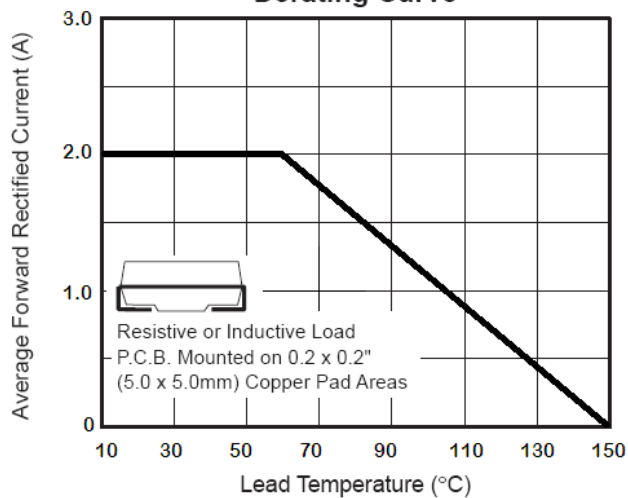
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	ES2D-A-18C	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	200	V
Maximum RMS Voltage	V <sub>rms</sub>	140	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	V
Maximum Average Forward Rectified	I <sub>f(av)</sub>	2.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I <sub>fsm</sub>	50.0	A
Maximum Instantaneous Forward Voltage at 2.0A	V <sub>f</sub>	0.92	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I <sub>r</sub>	2.0 50.0	μA
Maximum Reverse Recovery Time (Note1 )	T <sub>rr</sub>	20	nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	25	pF
Typical Thermal Resistance (Note 3)	R <sub>th(jl)</sub>	23	°C/W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150	°C

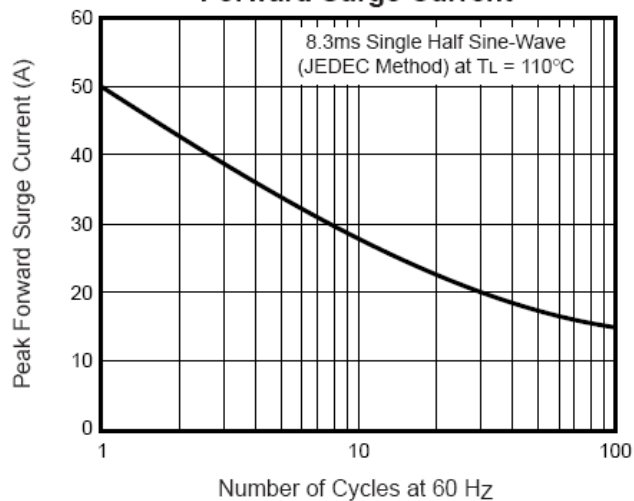
Note:

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>
3. Thermal Resistance from Junction to terminal mounted on 5x5mm copper pad area

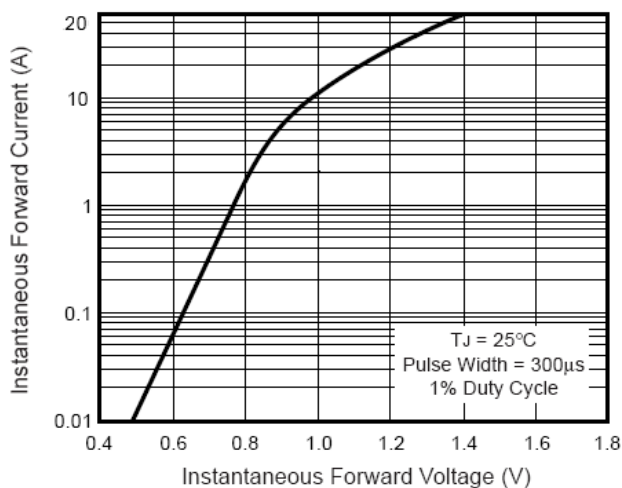
**Fig. 1 – Maximum Forward Current Derating Curve**



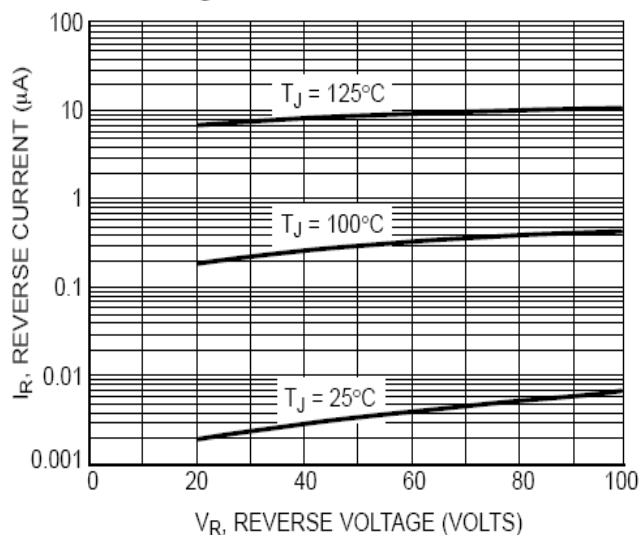
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig.4- Typical Reverse Current**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

