



ES3A THRU ES3M

SURFACE MOUNT RECTIFIER

50V-1000V 3.0A

FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

Case: JEDEC DO-214AA, molded plastic

Terminals: Solderable per

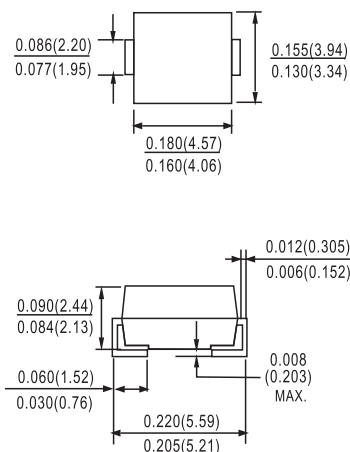
MIL- STD-202, Method 208

Polarity: Color band denotes cathode

Weight: 0.007 ounces, 0.21 grams

Mounting position: Any

DO-214AA(SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	ES3A	ES3B	ES3D	ES3G	ES3J	ES3K	ES3M	UNIT	
Maximum Recurrent 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 @T _A =55 °C	I(AV)	3.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	125							A	
Peak Forward Voltage at 3.0A DC	V _F	0.95			1.25		1.70			V
Maximum DC Reverse Current @T _J =25°C	I _R	5.0							μA	
at Rated DC Blocking Voltage @T _J =100°C		100								
Maximum Reverse Recovery Time(Note 1)	T _{RR}	35							nS	
Typical Junction Capacitance (Note2)	C _J	70					45		pF	
Typical Thermal Resistance (Note3)	R _{JA}	20							°C/W	
Operating Temperature Range	T _J	-55 to +150							°C	
Storage Temperature Range	T _{STG}	-55 to +150							°C	

NOTES: 1.Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient.



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RATINGS AND CHARACTERISTIC CURVES ES3A THRU ES3M

FIG.1 - FORWARD CURRENT DERATING CURVE

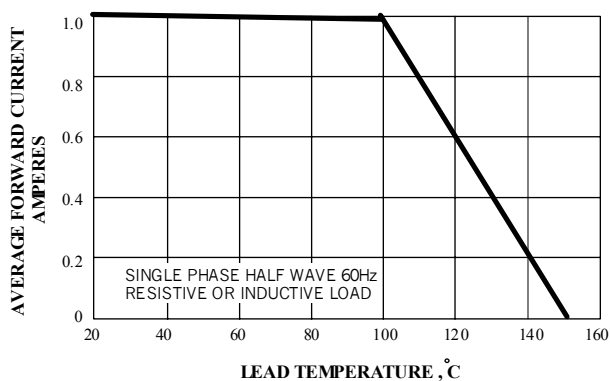


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

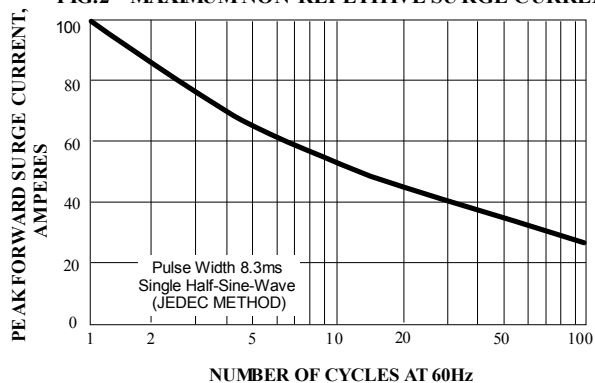


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

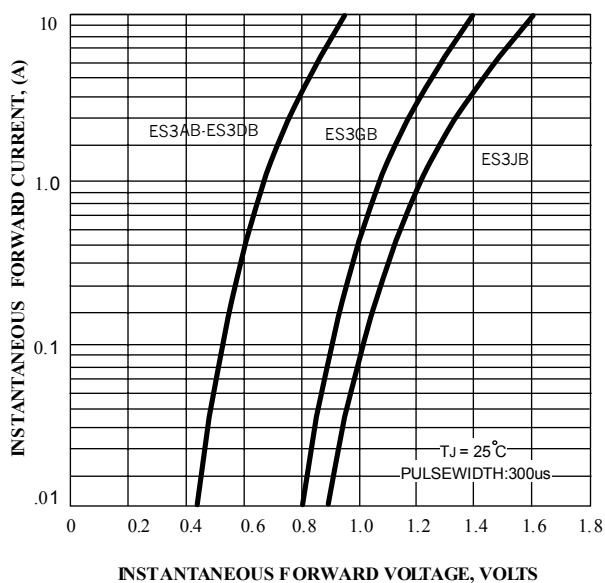


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

