

ES34B

**SURFACE MOUNT
ULTRAFAST EFFICIENT RECTIFIER**
VOLTAGE: 400V CURRENT: 3.0A

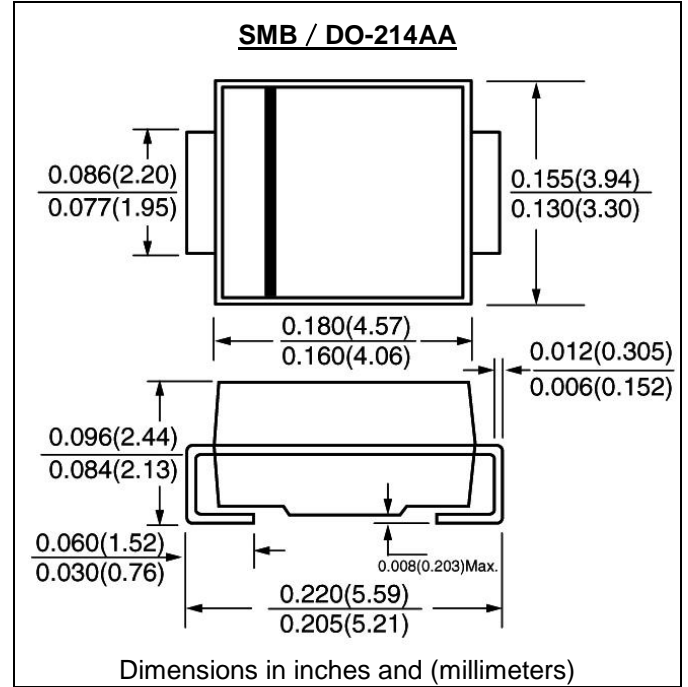


FEATURE

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

MECHANICAL DATA

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbol	ES34B	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	400	V
Maximum RMS Voltage	V _{rms}	280	V
Maximum DC blocking Voltage	V _{dc}	400	V
Maximum Average Forward Rectified Current at T _L =50°C	I _{f(av)}	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	100	A
Maximum Forward Voltage at rated forward current	V _f	1.25	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	10.0 500.0	μ A
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35	nS
Typical Junction Capacitance (Note 2)	C _j	45.0	pF
Typical Thermal Resistance (Note 3)	R _{th(jl)}	20.0	°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-50 to +150	°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0V_{dc}
- Thermal Resistance from Junction to terminal mounted on 7×7mm copper pad area

RATINGS AND CHARACTERISTIC CURVES ES34B

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

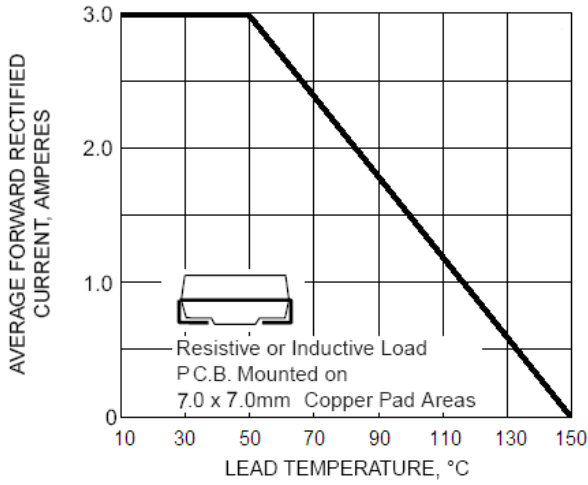


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

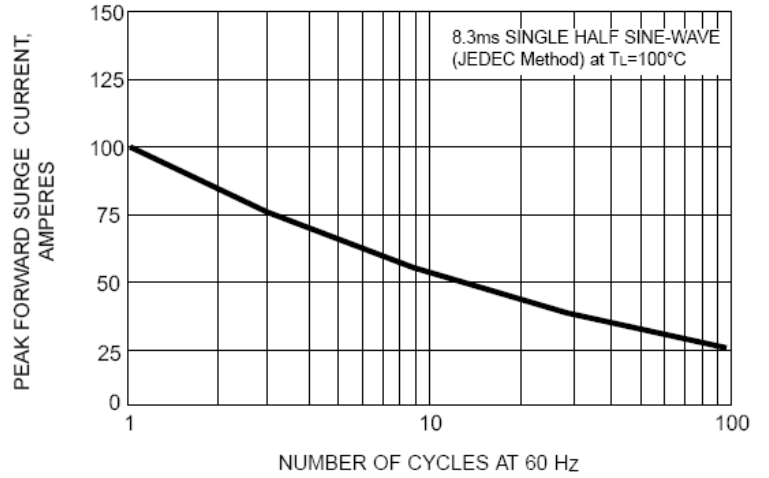


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

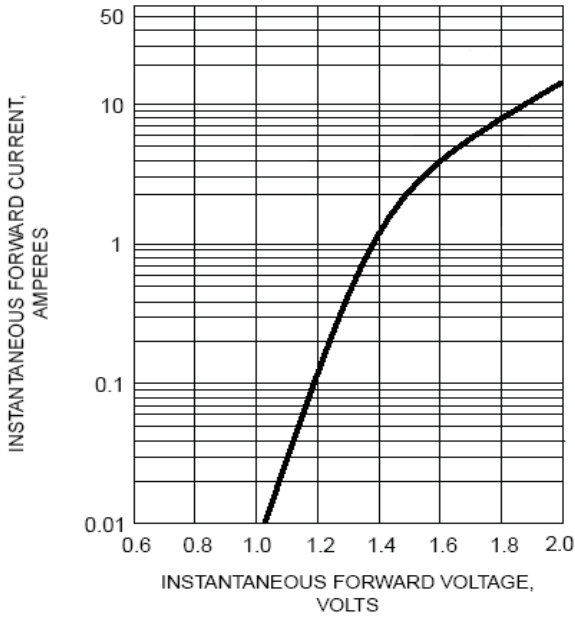


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

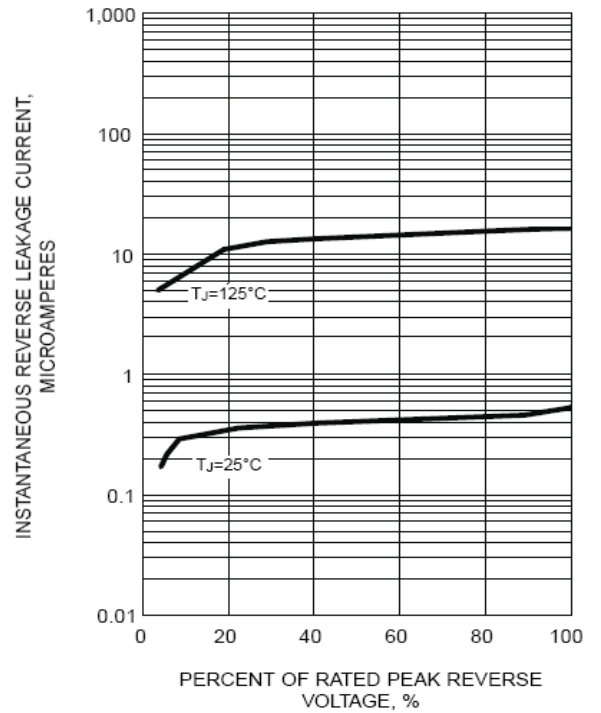


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

