

ES36B-E

SURFACE MOUNT
ULTRAFAST EFFICIENT RECTIFIER
VOLTAGE: 600V **CURRENT: 3.0A**



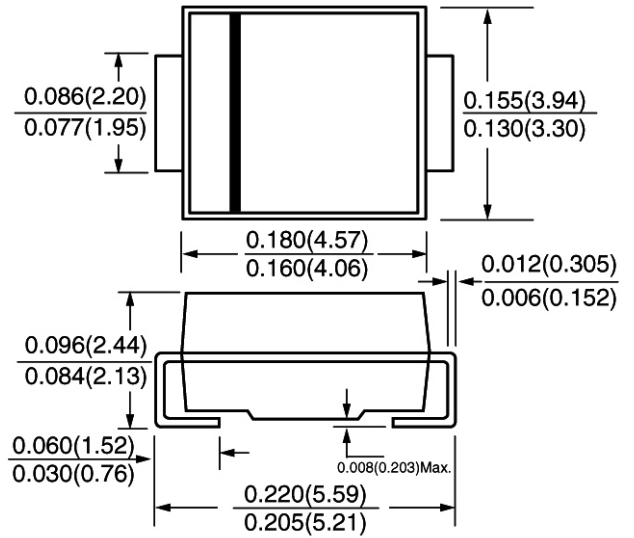
FEATURE

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
Halogen Free

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

SMB / DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbol	ES36B-E	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	600	V
Maximum RMS Voltage	V _{rms}	420	V
Maximum DC blocking Voltage	V _{dc}	600	V
Maximum Average Forward Rectified Current at T _L = 40°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	1.7	V
Maximum DC Reverse Current Ta = 25°C at rated DC blocking voltage Ta = 125°C	I _r	10 500	μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35	nS
Typical Junction Capacitance (Note 2)	C _j	28	pF
Typical Thermal Resistance (Note 3)	R _{th(jl)}	20	°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 ES36B-E

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

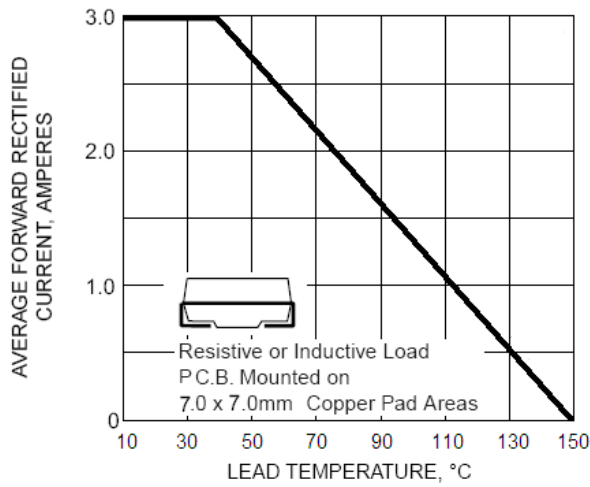


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

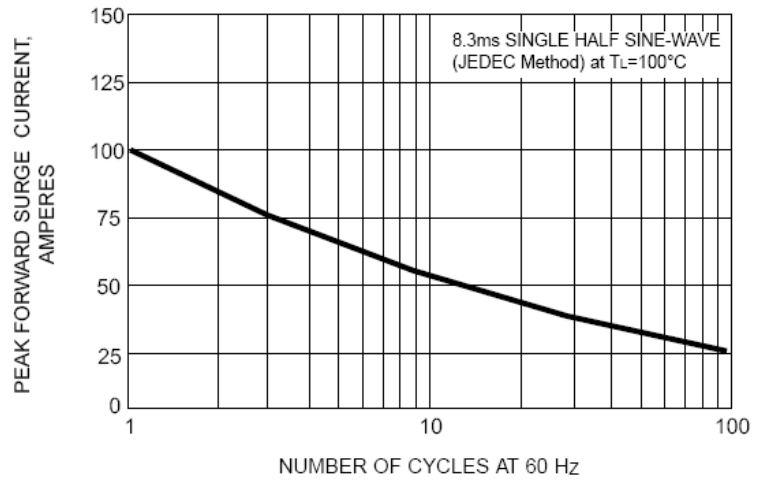


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

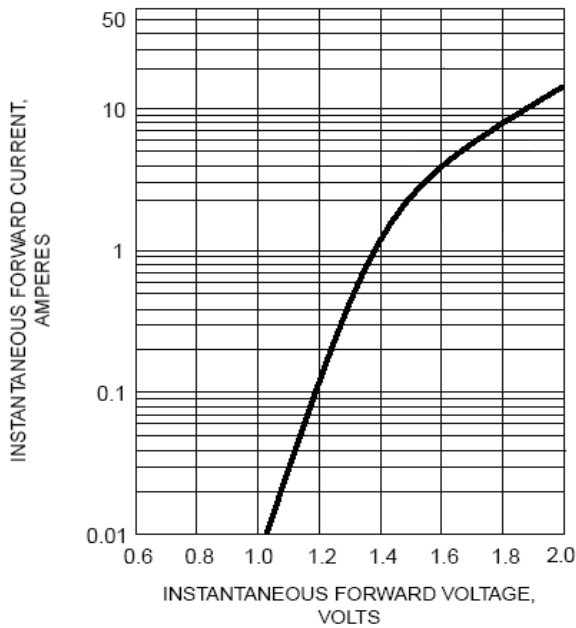


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

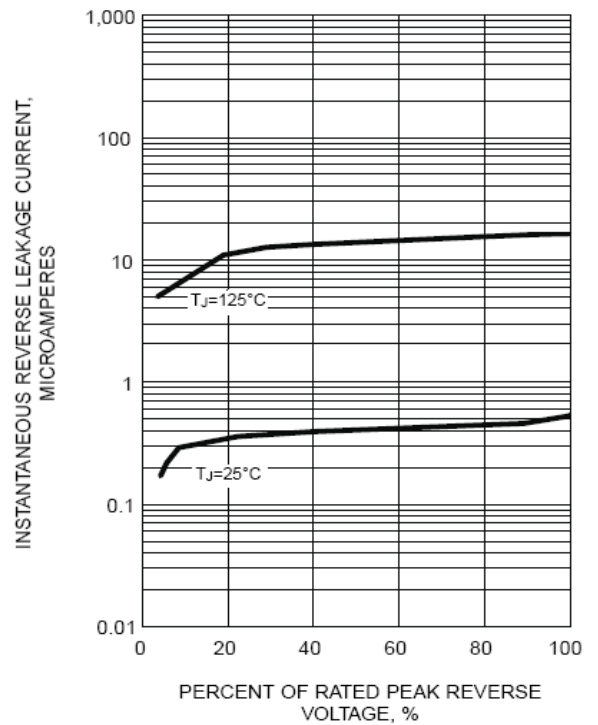


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

