

ES1D-E

SURFACE MOUNT FAST ULTRAFAST RECTIFIER

VOLTAGE: 200V

CURRENT: 1.0A



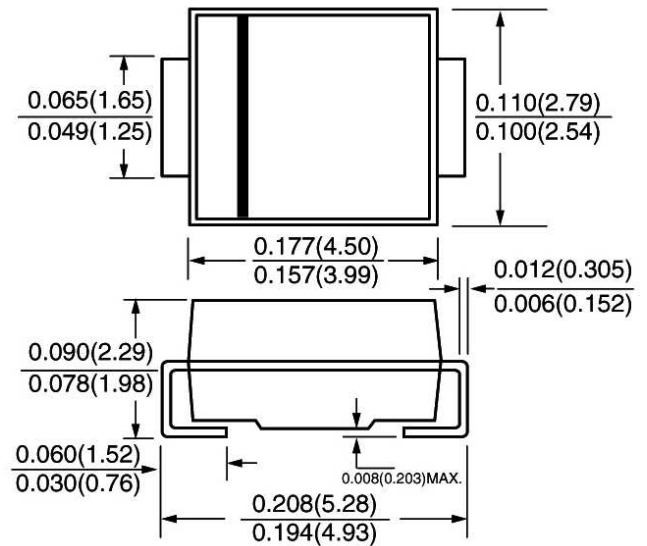
FEATURE

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 MIL-STD-750,
Method 2026
Case: JEDEC DO-214AC molded plastic body over
passivated chip
Polarity: Color band denotes cathode

SMA / DO-214AC



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,
for capacitive load, derate current by 20%)

	SYMBOL	ES1D-E	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	200	V
Maximum RMS Voltage	V _{rms}	140	V
Maximum DC blocking Voltage	V _{dc}	200	V
Maximum Average Forward Rectified Current 3/8"lead length at T _L =110°C	I _{f(av)}	1.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I _{fsm}	30.0	A
Maximum Forward Voltage at rated forward current	V _f	0.92	V
Maximum DC Reverse Current at rated DC blocking voltage	I _r	10.0 100.0	μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	15	nS
Typical Junction Capacitance (Note 2)	C _j	18.0	pF
Typical Thermal Resistance (Note 3)	R _{th(jl)}	30.0	°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-50 to +150	°C

Note:

1. Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES ES1D-E

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

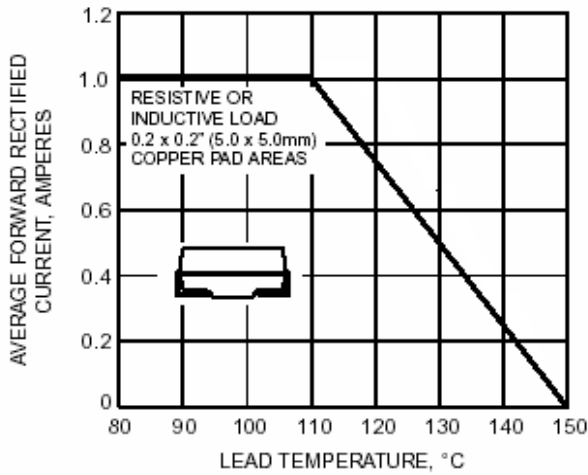


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

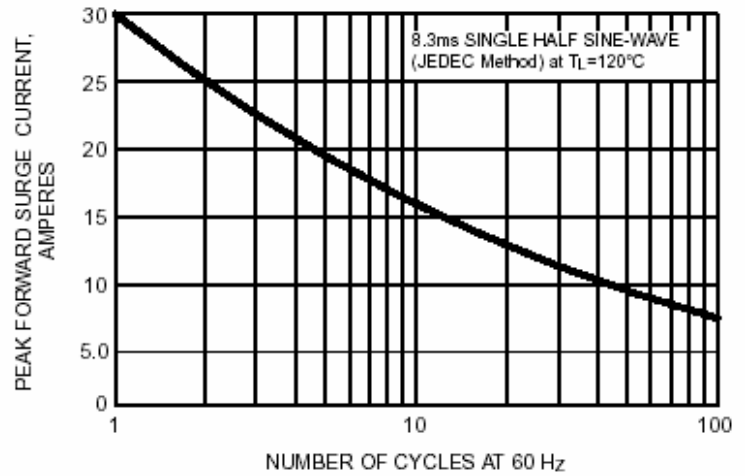


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

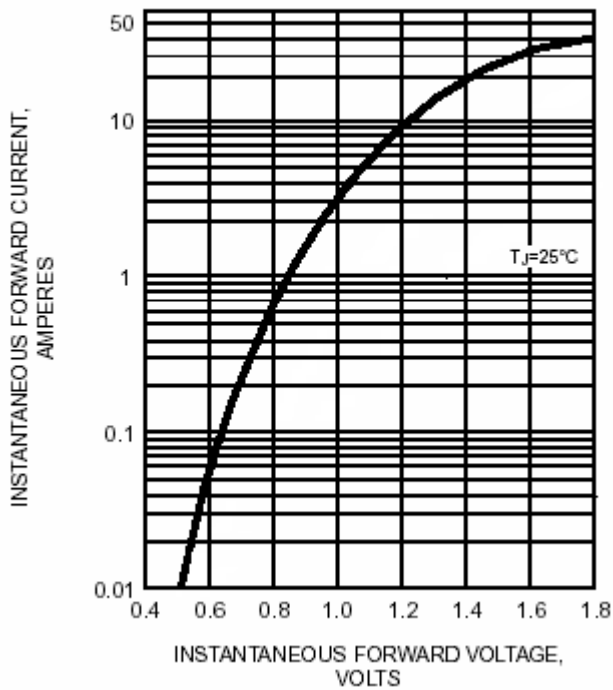


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

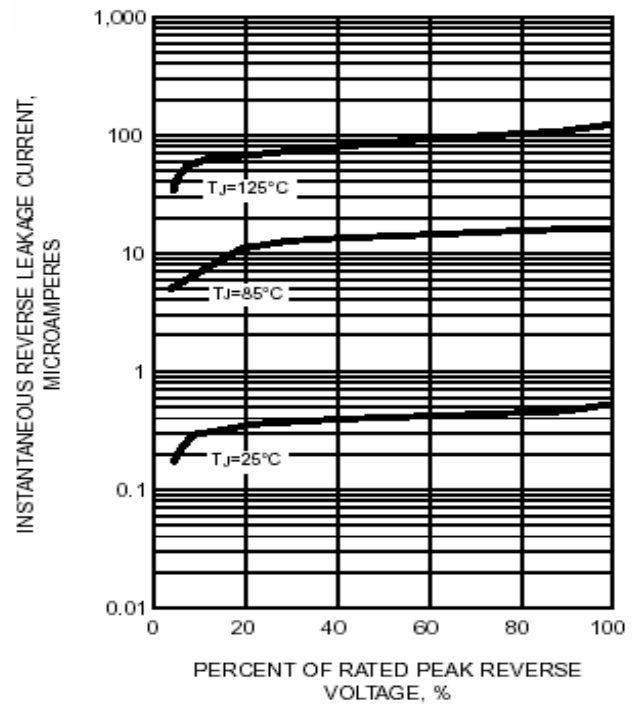


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

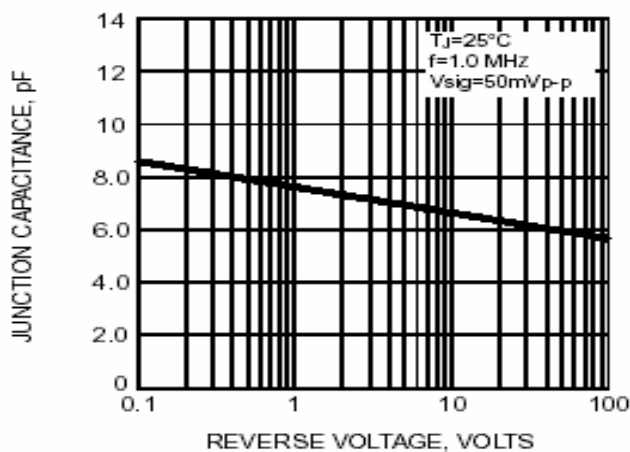


FIG. 6 - TYPICAL THERMAL IMPEDANCE

