

ES2A THRU ES2J

SURFACE MOUNT FAST ULTRAFAST RECTIFIER

VOLTAGE: 50 TO 600V

CURRENT: 2.0A



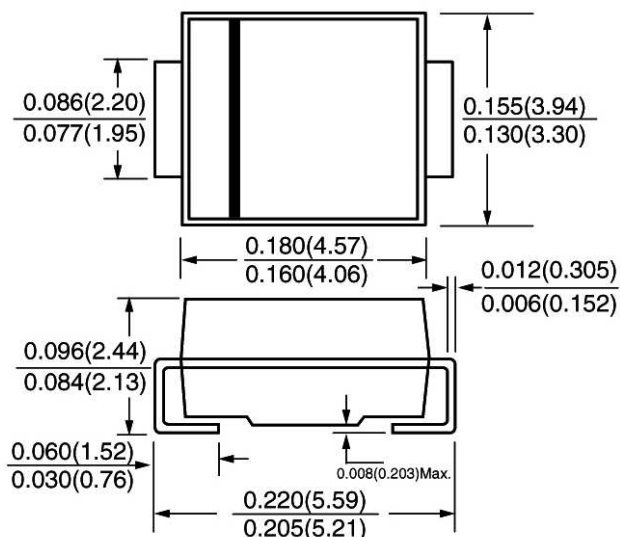
FEATURE

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

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

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,
for capacitive load, derate current by 20%)

	SYMBOL	ES2A	ES2B	ES2C	ES2D	ES2G	ES2J	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	150	200	400	600	V
Maximum RMS Voltage	V _{rms}	35	70	105	140	280	420	V
Maximum DC blocking Voltage	V _{dc}	50	100	150	200	400	600	V
Maximum Average Forward Rectified at T _L =100°C	I _{f(av)}	2.0						A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I _{fsm}	50.0						A
Maximum Instantaneous Forward Voltage at rated forward current 2.0A	V _f	0.92				1.25	1.7	V
Maximum DC Reverse Current T _a =25°C at rated DC blocking voltage T _a =100°C	I _r	10.0 350.0						µA
Maximum Reverse Recovery Time (Note1)	T _{rr}	15				25	35	nS
Typical Junction Capacitance (Note 2)	C _j	18.0						pF
Typical Thermal Resistance (Note 3)	R _{th(jl)}	20.0						°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-55 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 4.0V_{dc}
3. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES ES2A THRU ES2J

Fig. 1 – Maximum Forward Current Derating Curve

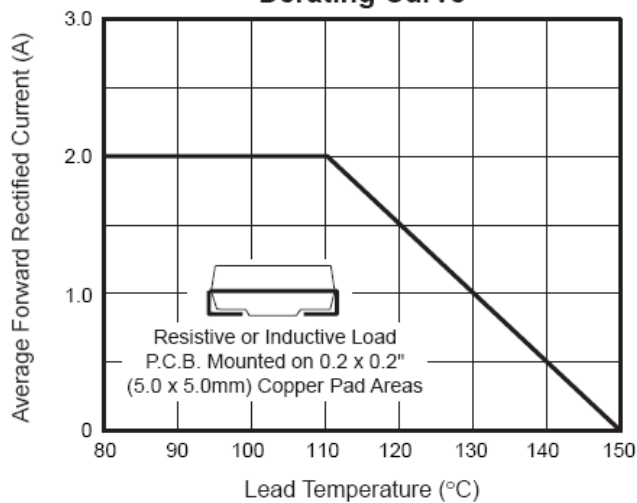


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

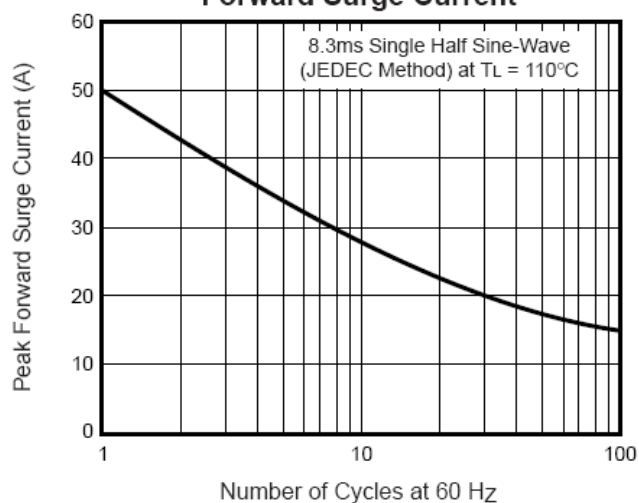


Fig. 3 – Typical Instantaneous Forward Characteristics

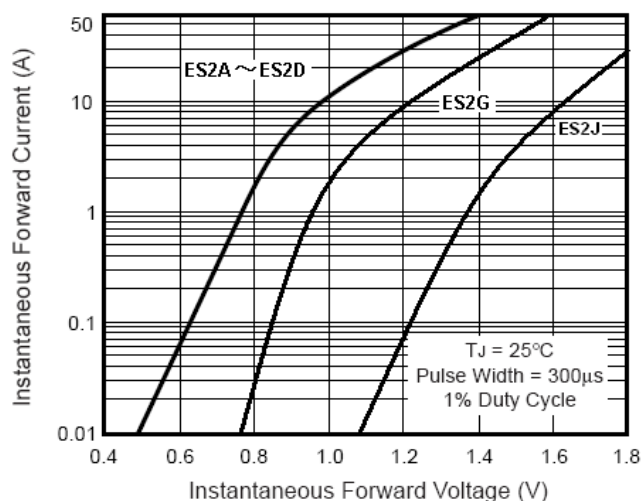


Fig. 4 – Typical Reverse Leakage Characteristics

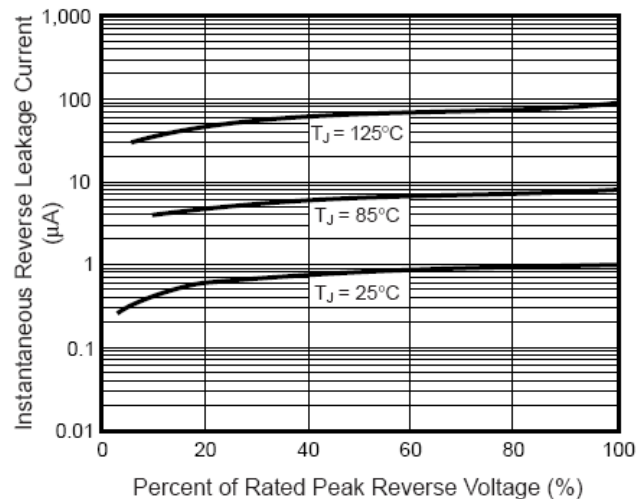


Fig. 5 – Typical Junction Capacitance

