ES2D-18C

SURFACE MOUNT FAST ULTRAFAST RECTIFIER

VOLTAGE: 200V **CURRENT: 2.0A**

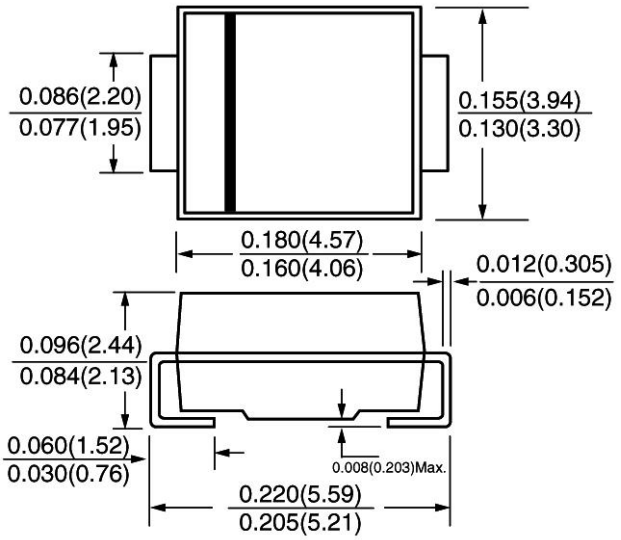
FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260℃/10sec/at terminals
Glass passivated chip
Ultrafast recovery time for high efficiency
Meet Standard of AEC-Q101

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℃, unless otherwise stated)

	Symbol	ES2D-18C	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	200	V
Maximum RMS Voltage	Vrms	140	V
Maximum DC blocking Voltage	Vdc	200	V
Maximum Average Forward Rectified at T_L =90℃	If(av)	2.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	50.0	A
Maximum Instantaneous Forward Voltage at rated forward current 2.0A	Vf	0.92	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	2.0 50.0	μA
Maximum Reverse Recovery Time (Note1)	Trr	20	nS
Typical Junction Capacitance (Note 2)	Cj	18	pF
Typical Thermal Resistance (Note 3)	Rth(jl)	13	℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-55 to +150	℃

Note：
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =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

Fig. 1 – Maximum Forward Current Derating Curve

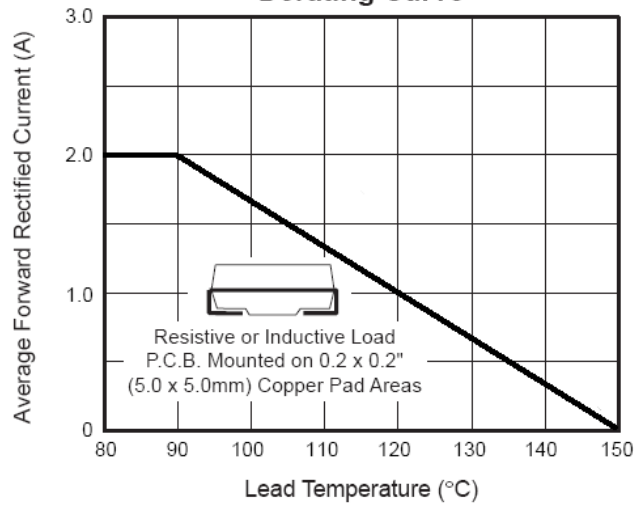


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

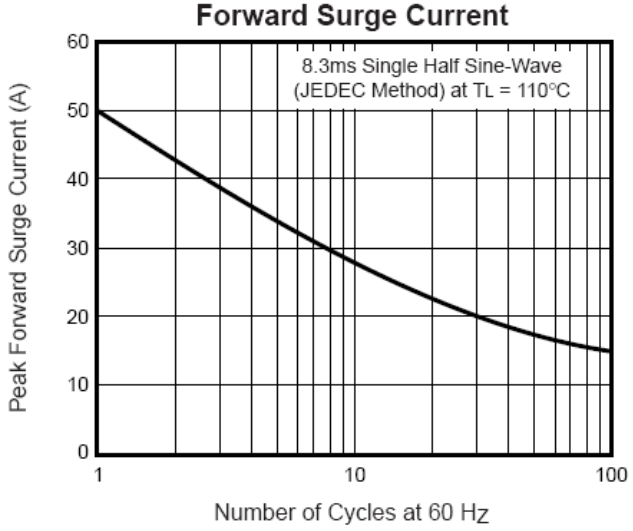


Fig. 3 – Typical Instantaneous Forward Characteristics

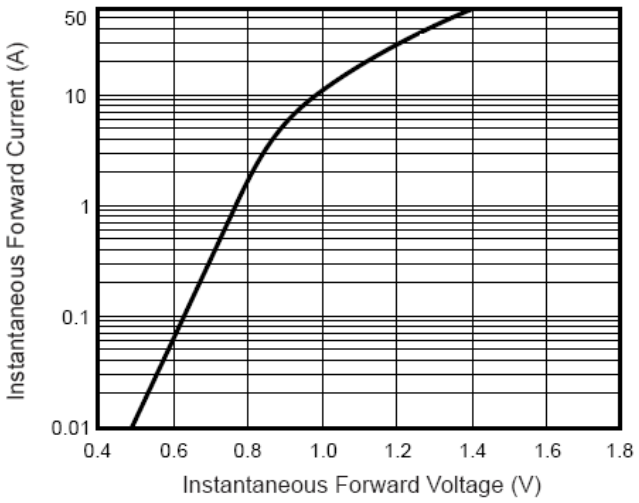


Fig.4- Typical Reverse Current

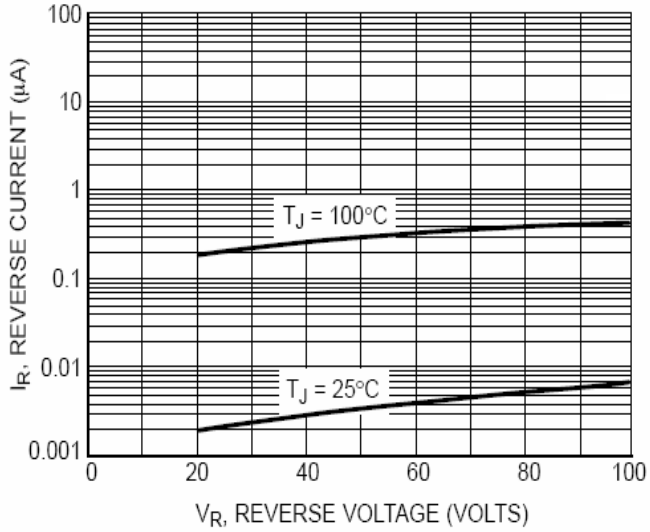


Fig. 5 – Typical Junction Capacitance