

2.0 AMP SUPER FAST RECTIFIERS

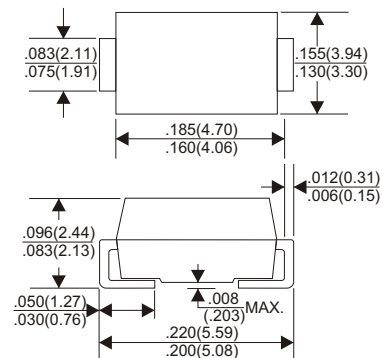
Features:

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * High surge current capability
- * Both normal and Pb free product are available:
- * Normal:80~95%Sn,5~20%Pb
- * Pb free:99 Sn above can meet Rohs enviroment substance directive request

Mechanical Data:

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.093 grams

DO-214AA(SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
 Single phase half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

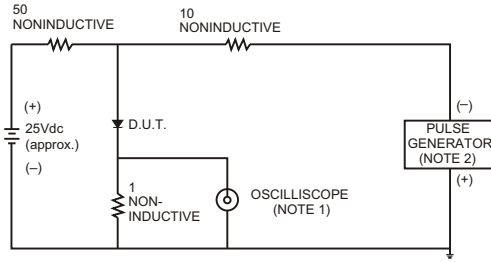
TYPE NUMBER	ES2A	ES2B	ES2D	ES2G	ES2J	ES2K	ES2M	UNITS	
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55°C								2.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)								60	A
Maximum Instantaneous Forward Voltage at 2.0A	0.95		1.25	1.70				V	
Maximum DC Reverse Current Ta=25°C								5.0	uA
at Rated DC Blocking Voltage Ta=100°C								150	uA
Maximum Reverse Recovery Time (Note 1)								35	nS
Typical Junction Capacitance (Note 2)								25	pF
Operating and Storage Temperature Range Tj, TSTG								-65 — +150	°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (ES2A THRU ES2M)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
 2. Rise Time= 10ns max., Source Impedance= 50 ohms.

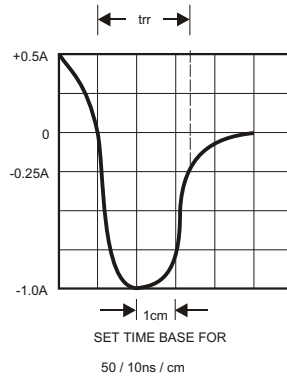


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

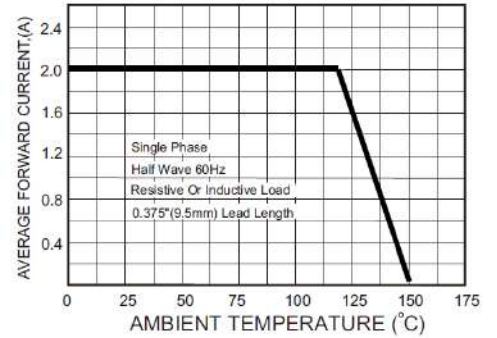


FIG.3-TYPICAL FORWARD CHARACTERISTICS

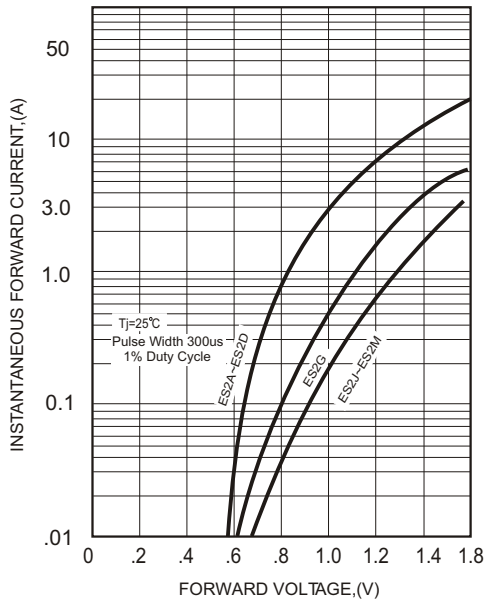


FIG.4-TYPICAL REVERSE CHARACTERISTICS

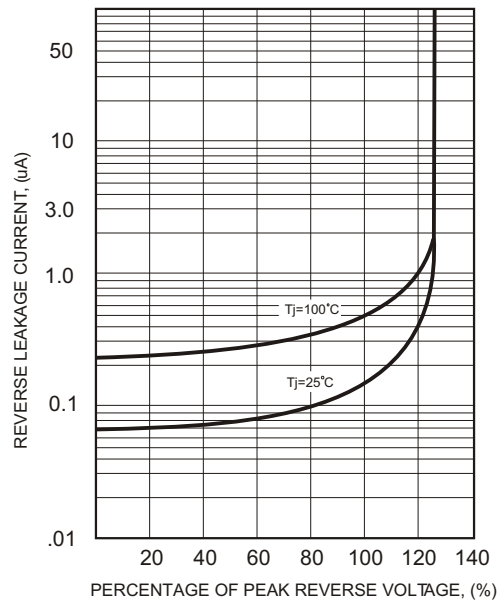


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

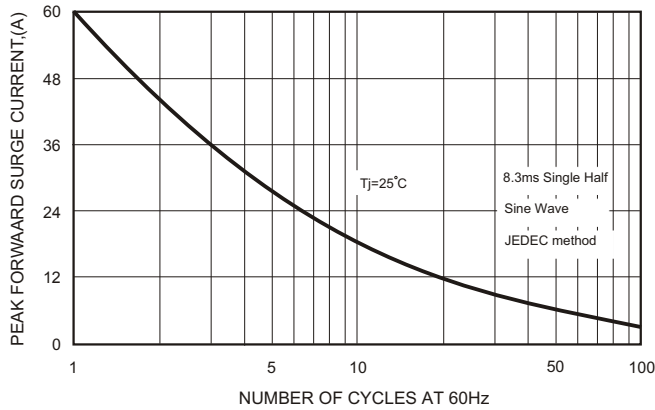
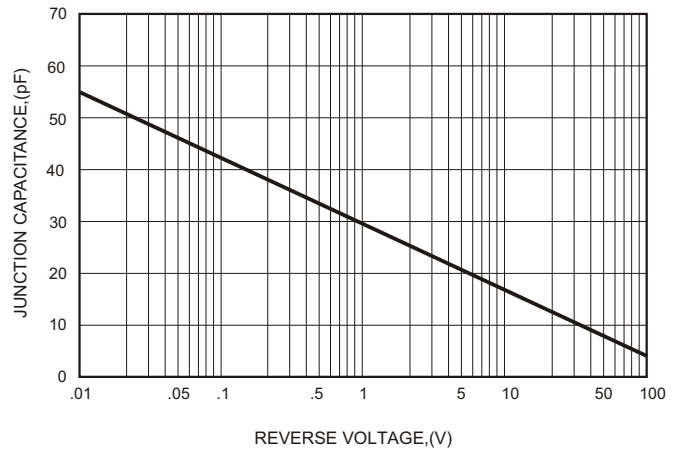
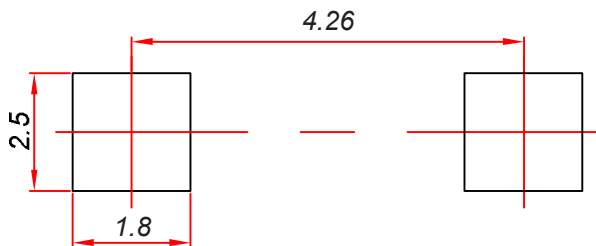


FIG.6-TYPICAL JUNCTION CAPACITANCE



SMB Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.