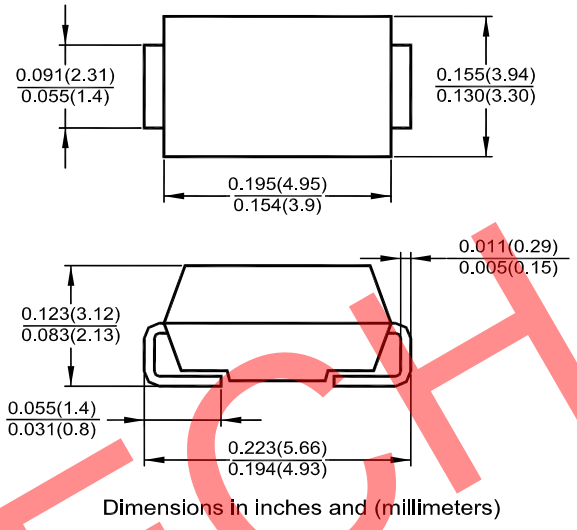
SE2AD THRU SE2MD

SURFACE MOUNT HIGH EFFICIENT RECTIFIERS
Reverse Voltage - 50 to 1000 V
Forward Current - 2 A

Features
- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Fast switching for high efficiency

Mechanical Data
- Case: SMB (DO-214AA) molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Lead formed for surface mount
- Polarity: color band denotes cathode end
- Mounting position: Any

SMB (DO-214AA)



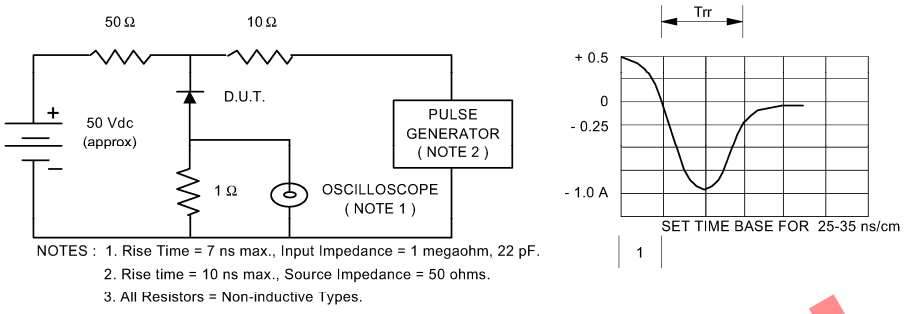
Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20 %.

Parameter	Symbols	SE2AD	SE2BD	SE2DD	SE2ED	SE2GD	SE2JD	SE2KD	SE2MD	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Current Ta = 55 °C	$I_{F(AV)}$	2								A
Maximum Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	75								A
Maximum Forward Voltage at I_F = 2 A	V_F	1.1					1.7			V
Maximum DC Reverse Current Ta = 25 °C	I_R	10								μA
at Rated DC Blocking Voltage Ta = 100 °C		50								
Maximum Reverse Recovery Time [1]	t_{rr}	50					75			ns
Typical Junction Capacitance [2]	C_j	50								pF
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150								°C

[1] Reverse recovery test conditions: I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A
[2] Measured at 1 MHz and applied reverse voltage of 4 V

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



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

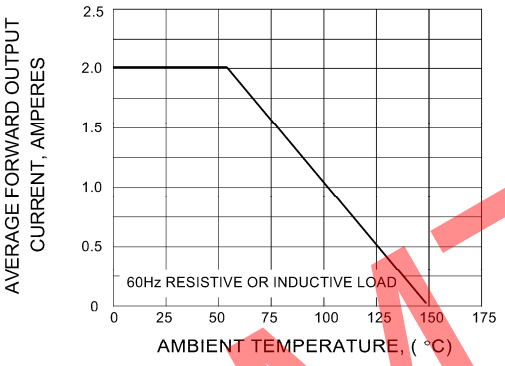


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

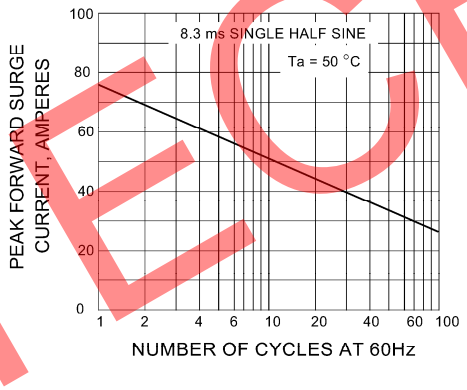


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

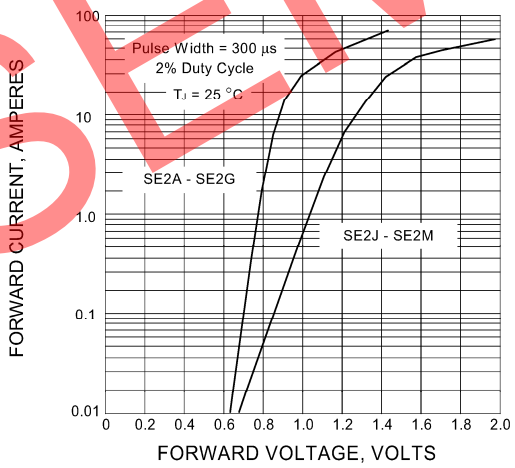


FIG.5 - TYPICAL REVERSE CHARACTERISTICS