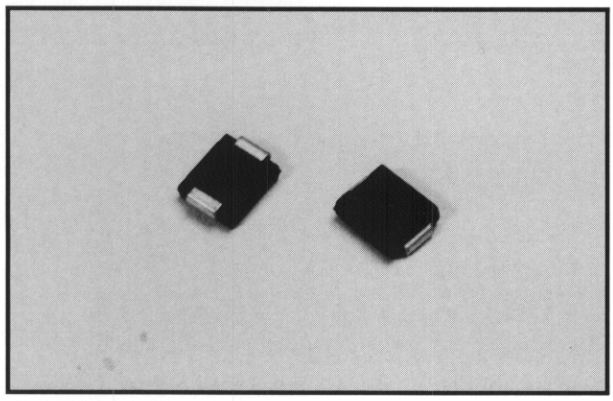
ES3A Thru ES3D

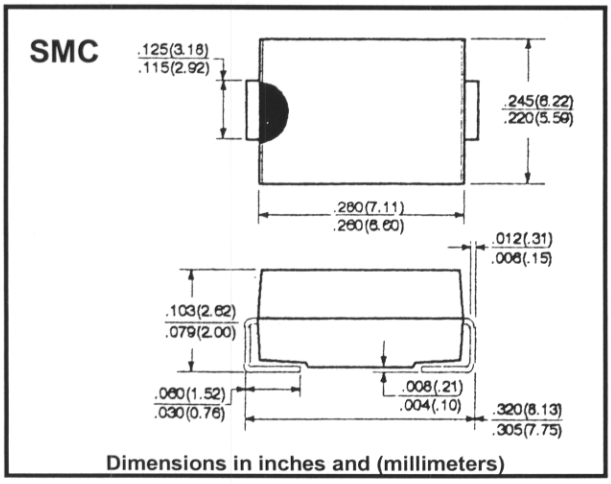
3 AMP SURFACE MOUNT GLASS SUPER FAST RECOVERY RECTIFIER



FEATURES

- Super fast recovery time
- For surface mount applications
- Reliable low cost construction utilizing molded plastic technique
- Low forward voltage drop
- UL recognized 94V-O plastic material
- High temperature soldering: 250 °C/10 seconds at terminals
- Glass passivated junction

Outline Drawing



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic
- Polarity: Indicated on cathode
- Weight: 0.007 ounces, 0.21 grams

Maximum Ratings & Characteristics

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

		ES3A	ES3B	ES3C	ES3D	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum RMS Input Voltage	V_{RMS}	35	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	V
Maximum Average Forward Output Current .375" 9.5mm lead length @ T_L = 100°C	$I_{(AV)}$	3.0				A
Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave Superimposed On Rated Load	I_{FSM}	100				A
MaximumForward Voltage Drop At 3.0A	V_F	0.9				V
Maximum Reverse Current At Rated @ T_A = 25°C	I_R	10				µA
DC Blocking Voltage per Bridge Element @ T_A = 100°C		500				µA
Maximum Reverse Recovery Time* (See Note)	t_{rr}	25				nS
Typical Junction Capacitance** (See Note)	C_J	45				pF
Typical Thermal Resistance***(See Note)	$R_{(THJL)}$	10				°C/W
Typical Thermal Resistance***(See Note)	$R_{(THJA)}$	50				°C/W
Operating Temperature Range	T_J	-65 to +150				°C
Storage Temperature Range	T_{STG}	-65 to +150				°C

Note: *Test conditions: IF=0.5A, IR = 1.0A, Irr = 0.25A

**Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC

***Thermal resistance junction lead/ambient measured on PC board 8.0mm^2 X (0.013mm thick)