

ES1A THRU ES1M

SURFACE MOUNTED SUPER FAST RECTIFIER
 VOLTAGE: 50 TO 1000V CURRENT: 1.0A



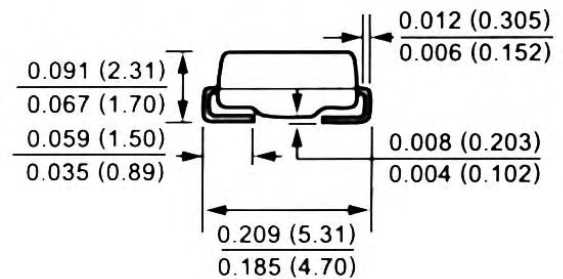
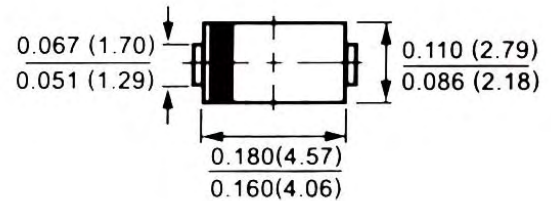
SMA/DO-214AC

Features

- ◆ Glass passivated junction chip
- ◆ For surface mounted application
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
250°C/10sec/at terminal/complete device
- ◆ Superfast recovery time for high efficiency

Mechanical data

- ◆ Cases: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
- ◆ Terminals: Plated axial leads solderable MIL-STD 202E, method 208C
- ◆ Polarity: Color band denote cathode end
- ◆ Weight: 0.002 ounce, 0.064 gram



Dimensions in inches and (millimeters)

Maximum ratings and electrical 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%

Parameter	Symbols	ES1A	ES1B	ES1D	ES1G	ES1J	ES1K	ES1M	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	550	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 3/8" lead length at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at rated forward current	V_F	0.95				1.3	1.7		V
Maximum DC reverse current $T_a=25^\circ\text{C}$ At rated DC blocking voltage $T_a=125^\circ\text{C}$	I_R					10.0			μA
						100.00			μA
Maximum Reverse Recovery Time	T_{rr}					35			nS
Typical junction capacitance	C_J					20.0			pF
Typical thermal resistance	R_{JA}					60.0			$^\circ\text{C/W}$
Storage and operating junction temperature	T_{STG}					-50 to +150			$^\circ\text{C}$

- Notes: 1. Measured at 1.0MHz and applied voltage of 4.0Vdc
 2. Thermal resistance from junction to terminal mounted on 5×5mm copper pad area
 3. Reverse recovery condition $I_f=1.0A, I_{rr}=0.25A$