

## **ES3A THRU ES3M**

SUPER FAST SURFACE MOUNT RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

### **Features**

- ◆ Glass passivated junction chip
- ◆ For surface mounted application
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Ideal for automated placement
- ◆ Easy pick and place
- ◆ Superfast recovery time for high efficiency
- ◆ Glass passivated chip junction
- ◆ High temperature soldering: 250°C/10 seconds at terminals
- Plastic material used carries Underwriters Laboratory Classification 94V-O

### **Mechanical Data**

- ◆ Cases: Molded plastic
- ◆ Terminals: Solder plated
- ◆ Polarity: Indicated by cathode band
- ◆ Weight: 0.007 ounce, 0.21 gram

# DO-214AB (SMC) 121(3.07) .115(2.92) .245(6.22) .220(5.59) .103(2.62) .079(2.00) .008(.20) .030(0.76) .320(8.13) .320(8.13) .320(8.13) .320(8.13) .320(8.13) .320(8.13) .320(8.13)

### **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	ES 3A	ES 3B	ES 3C	ES 3D	ES 3F	ES 3G	ES 3J	ES 3K	ES 3M	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1	I <sub>(AV)</sub>	3.0									Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) @T <sub>L</sub> =100°C	I <sub>FSM</sub>	100.0									Amps
Maximum instantaneous forward voltage @ 3.0A	V <sub>F</sub>	0.95 1.3					1.7			Volts	
	I <sub>R</sub>	10.0 500									uA uA
Maximum reverse recovery time (Note 1)	t <sub>rr</sub>	35									nS
Typical junction capacitance (Note 2)	C <sub>J</sub>	50 40							pF		
Typical thermal resistance (Note 3)	R <sub>eja</sub> R <sub>ejl</sub>	47 12									°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150									°C
Storage temperature range	T <sub>STG</sub>	-55 to +150									°C

- **Notes:** 1. Reverse Recovery Test Conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ 
  - 2. Measured at 1 MHz and Applied V<sub>e</sub>=4.0 Volts
  - 3. Units Mounted on P.C.B. with 0.31 x 0.31" (8.0 ^^ ` ` ^ ` `



### RATINGS AND CHARACTERISTIC CURVES ES3A THRU ES3M

(T<sub>A</sub> = 25°C unless otherwise noted)

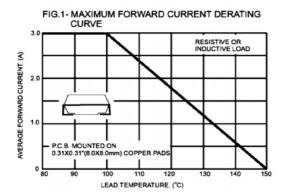


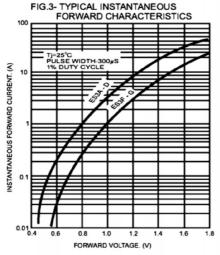
FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

150

8.3ms Single Half Sine Wave (JEDEC Method) at TL=120°C

100

NUMBER OF CYCLES AT 60Hz



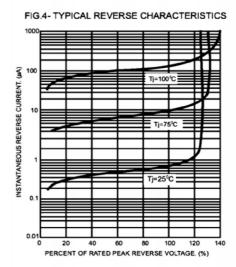
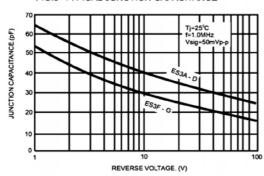


FIG.5- TYPICAL JUNCTION CAPACITANCE



# 单击下面可查看定价,库存,交付和生命周期等信息

# >>RCD(达标电子)