



ES1A - ES1J

1.0 AMP. Surface Mount Super Fast Rectifiers

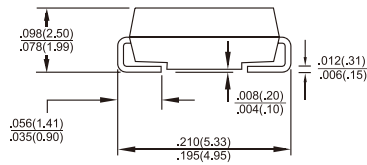
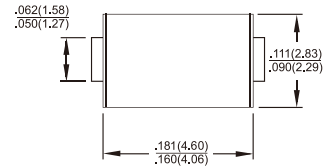
SMA/DO-214AC

Features

- ◇ UL Recognized File # E-326243
- ◇ Glass passivated junction chip
- ◇ For surface mounted application
- ◇ Low profile package
- ◇ Built-in strain relief
- ◇ Ideal for automated placement
- ◇ Easy pick and place
- ◇ Super fast recovery time for high efficiency
- ◇ Glass passivated chip junction
- ◇ High temperature soldering: 260°C/10 seconds at terminals
- ◇ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ◇ Qualified as per AEC-Q101
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◇ Cases: Molded plastic
- ◇ Terminals: Pure tin plated, lead free.
- ◇ Polarity: Indicated by cathode band
- ◇ Packing: 12mm tape per EIA STD RS-481
- ◇ Weight: 0.064 grams



Dimensions in inches and (millimeters)

Marking Diagram



ES1X = Specific Device Code
G = Green Compound
Y = Year
M = Work Month

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	ES 1A	ES 1B	ES 1C	ES 1D	ES 1F	ES 1G	ES 1H	ES 1J	Units	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	V	
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	V	
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current See Fig. 1	IF(AV)	1.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	30								A	
Maximum Instantaneous Forward Voltage @ 1.0A	VF	0.95				1.3		1.7		V	
Maximum DC Reverse Current at Rated@T _A =25°C	IR	5.0				100					uA
DC Blocking Voltage (Note 1) @ T _A =125 °C		uA									
Maximum Reverse Recovery Time (Note 2)	Trr	35								nS	
Typical Junction Capacitance (Note 3)	Cj	16				18					pF
Maximum Thermal Resistance (Note 4)	R _{θJA} R _{θJL}	85 35									°C /W
Operating Temperature Range	T _J	-55 to +150									°C
Storage Temperature Range	T _{STG}	-55 to +150									°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
3. Measured at 1 MHz and Applied VR=4.0 Volts
4. P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Area.

Version: F10

RATINGS AND CHARACTERISTIC CURVES (ES1A THRU ES1J)

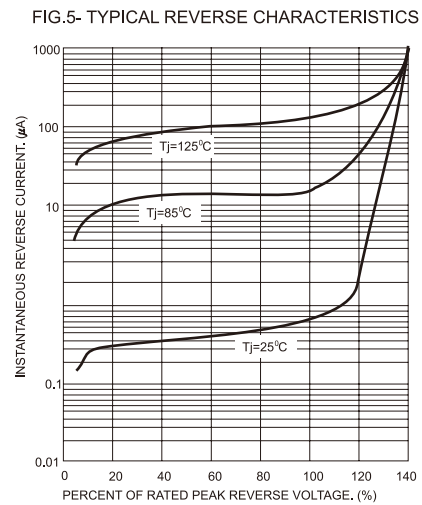
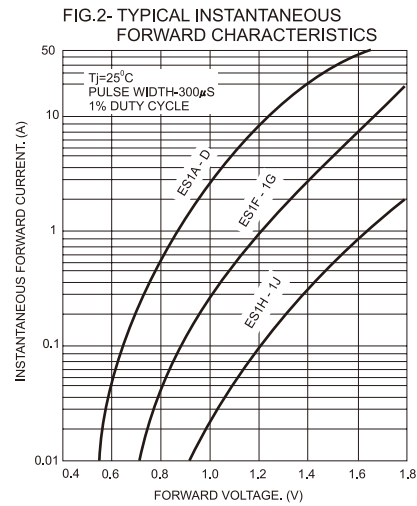
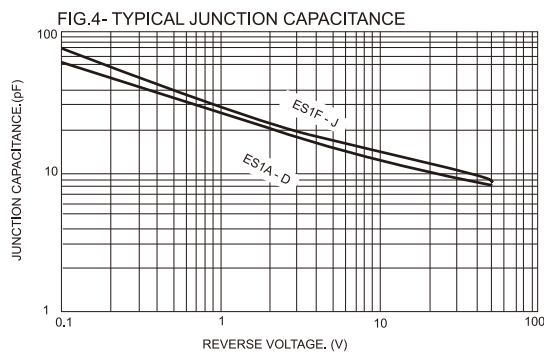
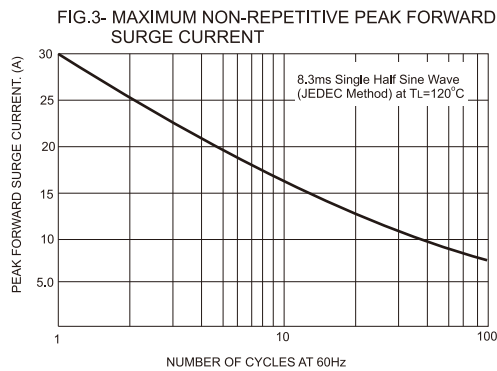
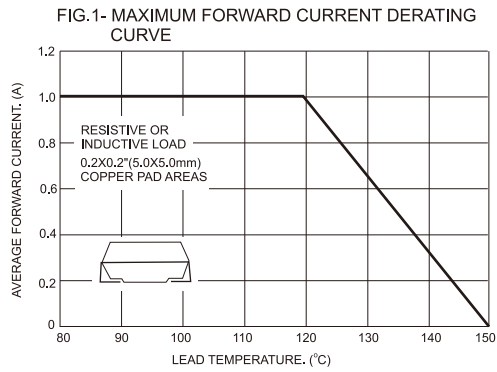


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

