



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 2790-0314 FAX: 2790-0206



RECTIFIER SPECIALISTS

ES1A
THRU
ES1G

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SUPER FAST RECTIFIER

VOLTAGE RANGE - 50 to 400 Volts

CURRENT - 1.0 Ampere

FEATURES

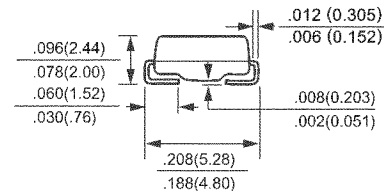
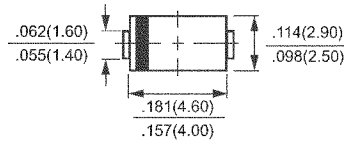
- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.064 gram



SMA (DO-214AC)



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%.

	SYMBOL	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	Volts
Maximum RMS Volts	VRMS	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage	Vbc	50	100	150	200	300	400	Volts
Maximum Average Forward Current at TA = 55°C	Io	1.0						Amps
Peak Forward Surge Current IFM (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30						Amps
Maximum Forward Voltage at 1.0A DC	VF	0.95			1.25			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C	5.0					uAmps
		@TA = 100°C	100					
Maximum Reverse Recovery Time (Note 1)	trr	35					nSec	
Typical Junction Capacitance (Note 2)	CJ	15					10	pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175						°C

NOTES : 1. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.



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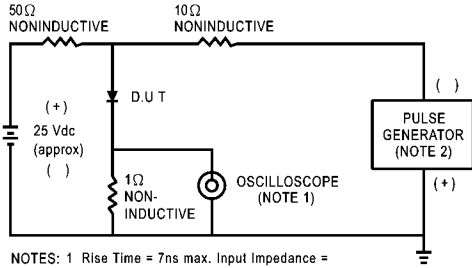
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RATING AND CHARACTERISTIC CURVES (ES1A THRU ES1G)

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



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22 pF
2 Rise Time = 10ns max. Source Impedance = 50 ohms.

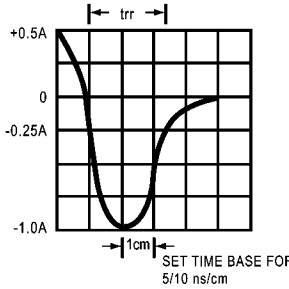


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

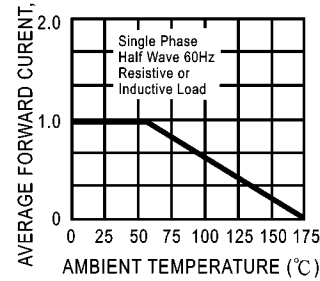


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

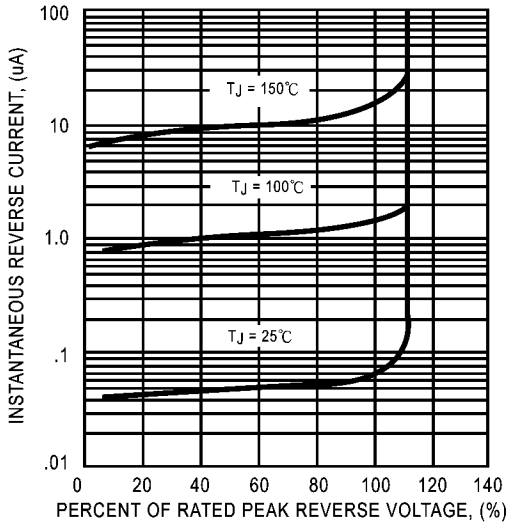


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

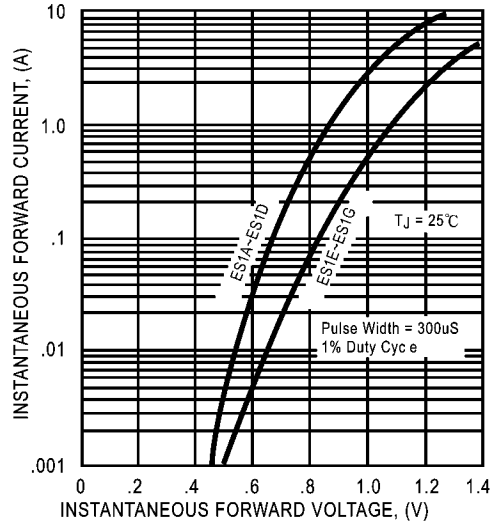


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

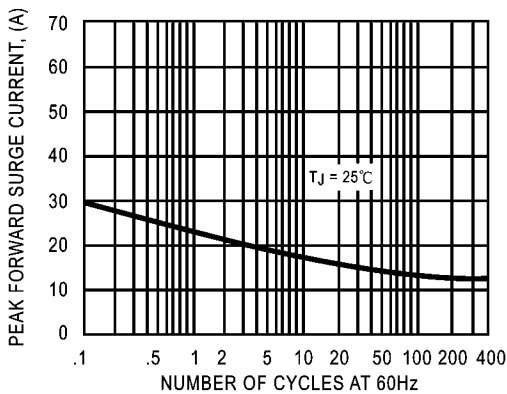


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

