



YENYO

ES1A THRU ES1J

Surface Mount Efficient Fast Recovery Rectifier

Features

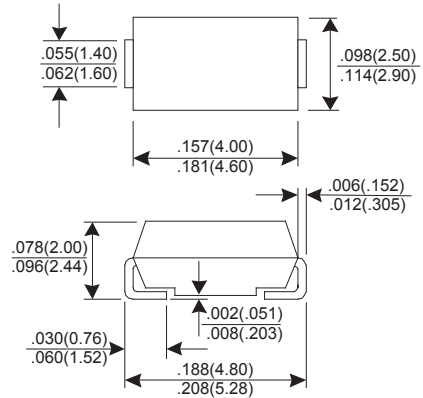
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability
- * Glass passivated chip

Mechanical Data

- * Case: Molded plastic SMA/DO-214AC
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-750 method 2026
- * Polarity: Color band denotes cathode
- * Mounting position: Any
- * Weight: 0.064 gram

Voltage Range 50 to 600 V
Current 1.0 Ampere

SMA/DO-214AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

CHARACTERISTIC	SYMBOL	ES1A	ES1B	ES1D	ES1G	ES1J	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V	
Maximum RMS Voltage	VRMS	35	70	140	280	420	V	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V	
Maximum Average Forward Rectified Current TA=55°C	IF(AV)	1.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	30						A
Maximum Instantaneous Forward Voltage @ 1.0 A	VF	0.92			1.3	1.5	V	
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	5.0			100		uA	
Maximum Reverse Recovery Time (Note 1)	Trr	15			25	50	nS	
Typical junction Capacitance (Note 2)	CJ	15						pF
Typical Thermal Resistance (Note 3)	RJA	75						°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150						°C

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal Resistance junction to ambient.

RATINGS AND CHARACTERISTIC CURVES ES1A THRU ES1J

FIG.1 - FORWARD CURRENT DERATING CURVE

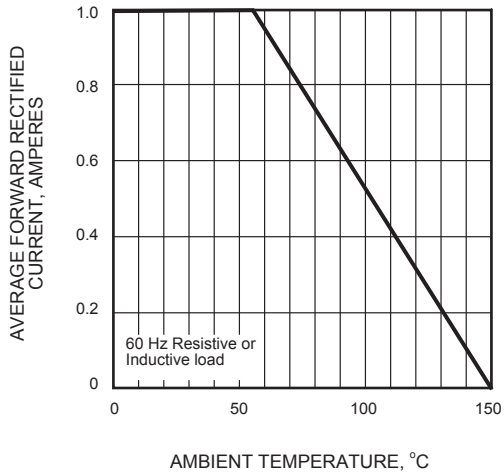


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

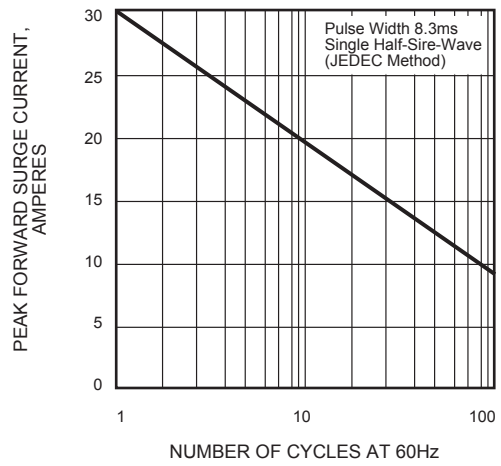


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

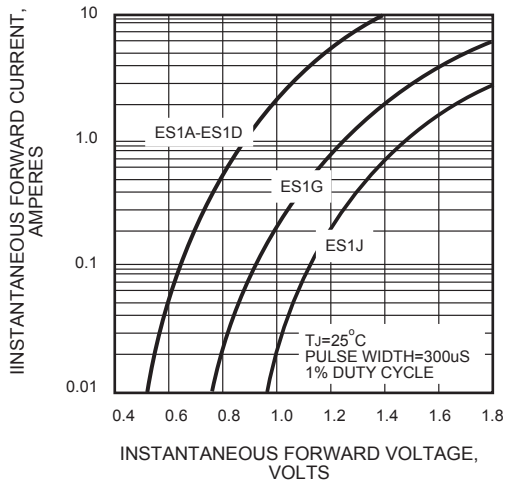


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

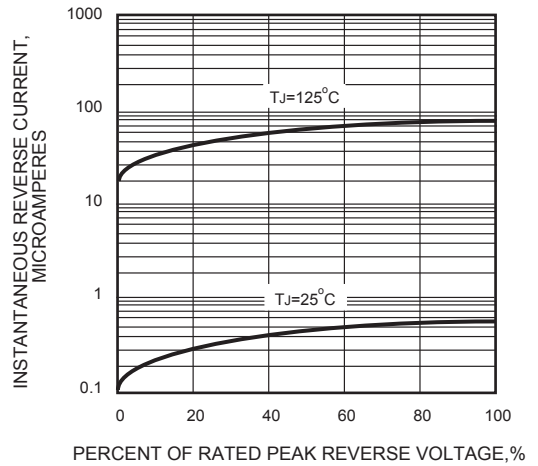


FIG.5 - TYPICAL JUNCTION CAPACITANCE

