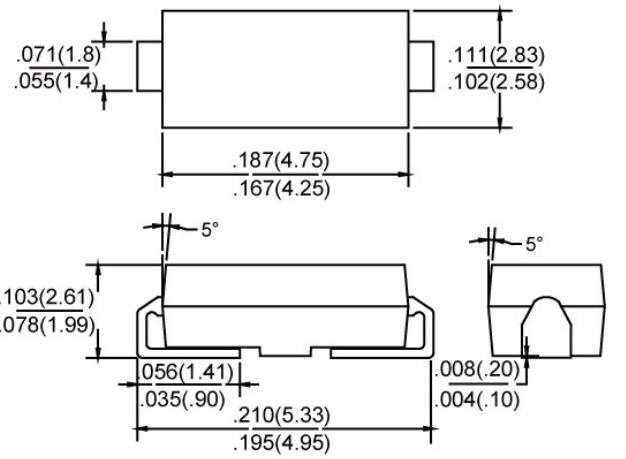
SURFACE MOUNT RECTIFIER
ES1AW Thru ES1JW, Super Fast 1.0 Amp

RoHS

FEATURES

- Voltage range 50~600 volts
- Low profile package
- Built-in strain relief
- Super fast recovery time for high efficiency
- High temperature soldering:
  260°C / 10 seconds at terminals



SMA (DO-214AC)
Dimensions in inches and (millimeters)

MECHANICAL DATA

- Molded plastic body(UL 94V-0)
- Solder plated terminals
- Polarity: Indicated by cathode band
- Packaging: 12mm tape EIA STD RS-481
- Weight: 0.064gram

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capactitive load, derate current by 20%

Parameter	Symbol	ES1AW	ES1BW	ES1CW	ES1DW	ES1FW	ES1GW	ES1HW	ES1JW	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375" lead length @ Ta = 50°C	$I_{F(AV)}$	1.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30								A
Maximum Instantaneous Forward Voltage (Note @ 1.0 A)	V_{FM}	0.95				1.30		1.7		V
Maximum DC Reverse Current @ T_A = 25°C At rated DC Blocking Voltage @ T_A = 125°C	I_{RRM1} I_{RRM2}	5.0 50								μA
Maximum Reverse Recovery Time	T_{rr}	35								nS
Typical Thermal Resistance	$R_{\theta JA}$	55								°C / W
Typical Junction Capacitance (Measured at 1Mhz and applied reverse voltage of 4.0 Vdc)	C_J	40				25				pF
Operating Temperature Range	T_J	-55 to +125								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

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RATING & CHARACTERISTIC CURVES

FIG.1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

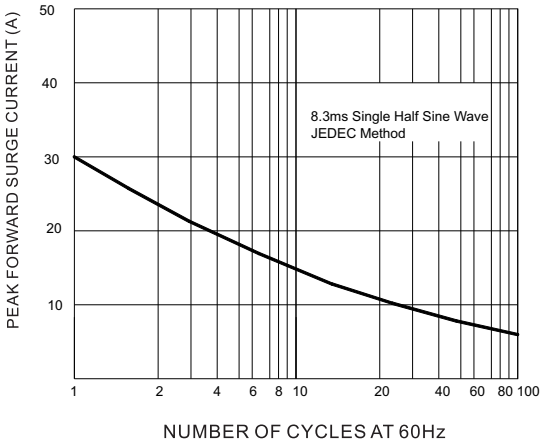


FIG.2-MAXIMUM FORWARD CURRENT DERATING

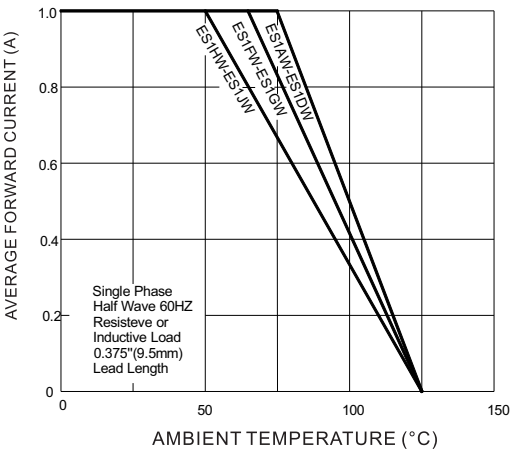


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

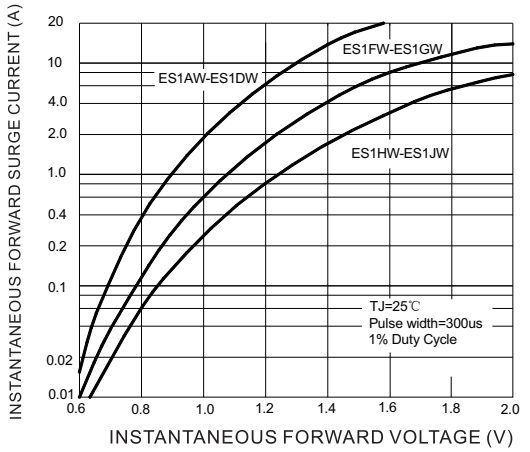


FIG.4-TYPICAL REVERSE CHARACTERISTICS

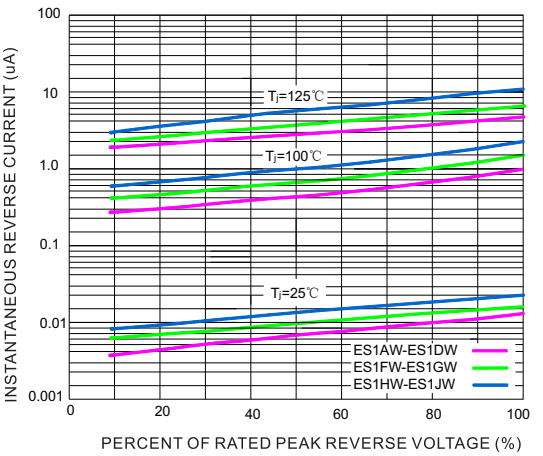
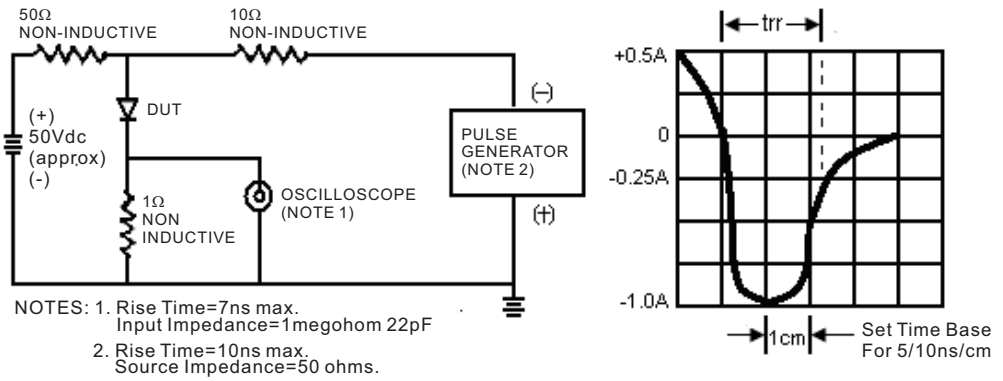


FIG.5-REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

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