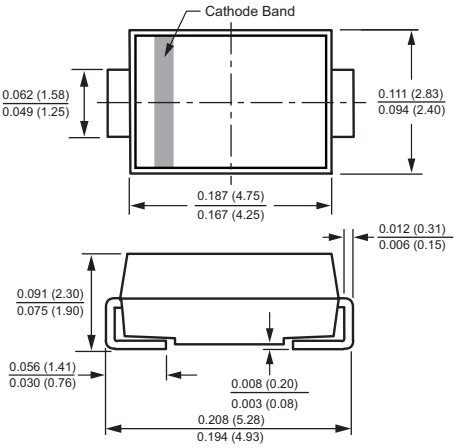
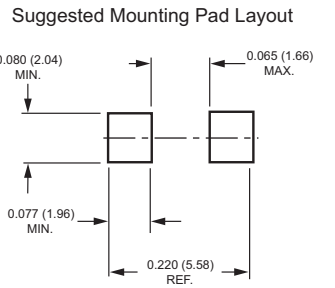
SURFACE MOUNT RECTIFIER
ES2AA Thru ES2JA, Super Fast 2.0 Amp

RoHS

FEATURES

- Glass passivated junction chip
- 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	ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2HA	ES2JA	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 60Hz Half-Sine Wave, Resistance Load, T_L = 110℃	$I_{F(AV)}$	2.0								A
Surge (Non-Repetitive) Forward Current 60Hz Half-Sine Wave, 1 Cycle, TA = 25℃	I_{FSM}	50								A
Maximum Instantaneous Forward Voltage (Note @ 2.0 A)	V_F	0.95				1.30		1.7		V
Maximum DC Peak @ T_A = 25˚C	I_{RRM1}	5.0								μA
Reverse Current @ TA = 100℃	I_{RRM2}	350								μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35								nS
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	75								˚C / W
	$R_{\theta JL}$	20								˚C / W
Operating Temperature Range	T_J	-55 to +150								˚C
Storage Temperature Range	T_{STG}	-55 to +150								˚C

Note: 1. Reverse Recovery test conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
2. P.C.B. Mounted on 0.27 x 0.27" (7.0 x 7.0mm) Copper Pad Area

RFE International • Tel:(949) 833-1988 • Fax:(949) 833-1788 • E-Mail Sales@rfeinc.com

2015.07.31

RATING & CHARACTERISTIC CURVES

FIG.1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

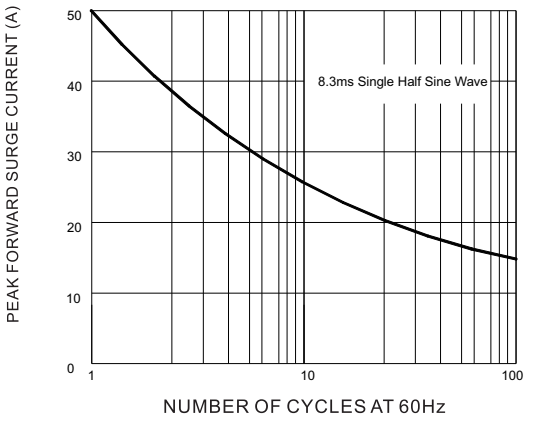


FIG.2-MAXIMUM FORWARD CURRENT DERATING

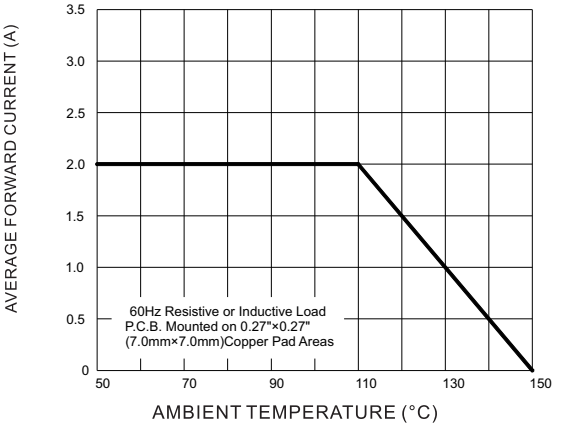


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

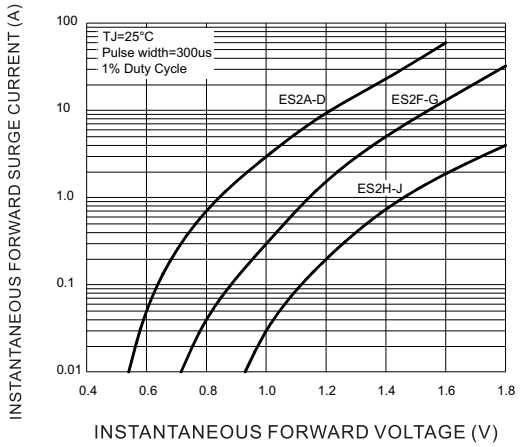


FIG.4-TYPICAL REVERSE CHARACTERISTICS

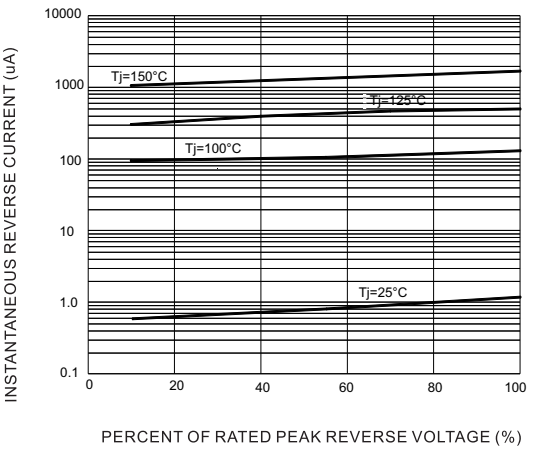
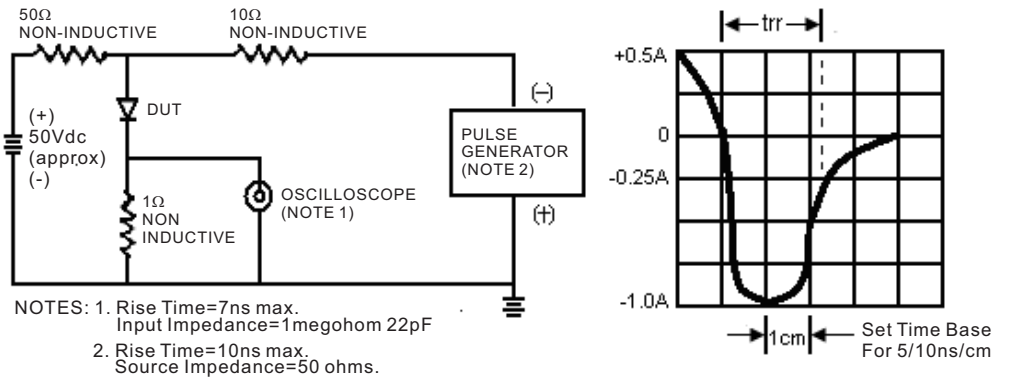


FIG.5-REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

RFE International • Tel:(949) 833-1988 • Fax:(949) 833-1788 • E-Mail Sales@rfeinc.com

2015.07.31