

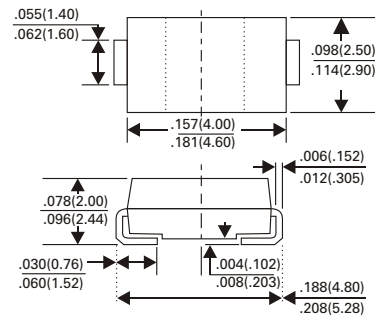
ES2A thru ES2J

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE - 50 TO 600 VOLTS CURRENT - 2.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS Environment substance directive request

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode band
Standard packaging : 16mm tape (EIA-481)
Weight : 0.093grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified
Single phase, half wave, 60Hz, resistive or inductive load
For capacitive load, derate current by 20%

	SYMBOL	ES2A	ES2B	ES2C	ES2D	ES2F	ES2G	ES2H	ES2J	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current @ T _L = 100°C	I _(AV)	2.0								Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	50								Amps
Maximum Instantaneous Forward Voltage at 2.0A	V _F	0.95				1.3		1.7		Volts
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	10 350								μ A
Maximum Reverse Recovery Time (NOTE 1)	T _{RR}	35								nS
Typical Junction Capacitance (NOTE 2)	C _J	25				20				pF
Typical Thermal Resistance (NOTE 3)	R θ JA R θ JL	75 20								°C / W
Operating and Storage Temperature Range	T _J T _{STG}	-55 to +150								°C

NOTES :

1. Reverse Recovery Test Conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and applied reverse Voltage of 4.0VDC
3. Units Mounted on P.C.B. 0.2" X 0.2" (5mmX5mm) Pad Areas

ES2A thru ES2J

SURFACE MOUNT SUPERFAST RECTIFIER

RATING AND CHARACTERISTICS CURVES ES2A THRU ES2J

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

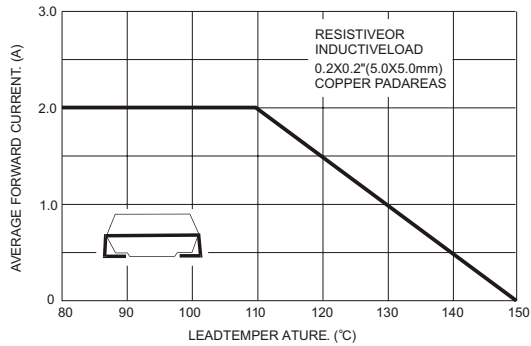


FIG.2-TYPICAL REVERSE CHARACTERISTICS

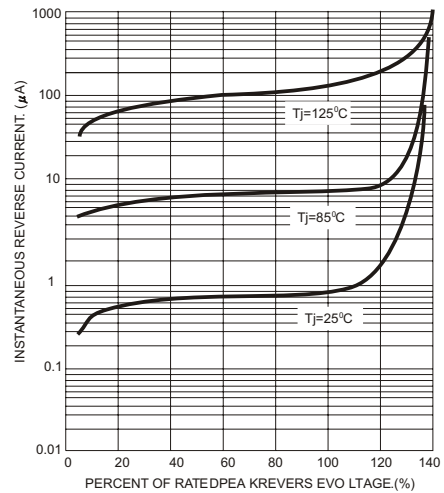


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

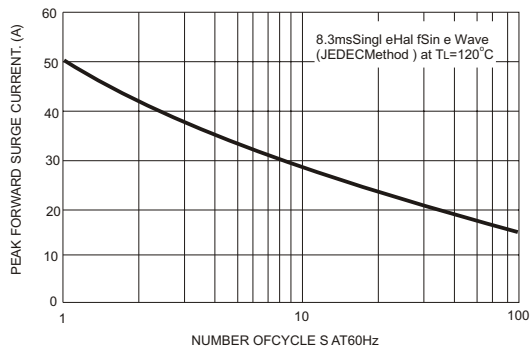


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

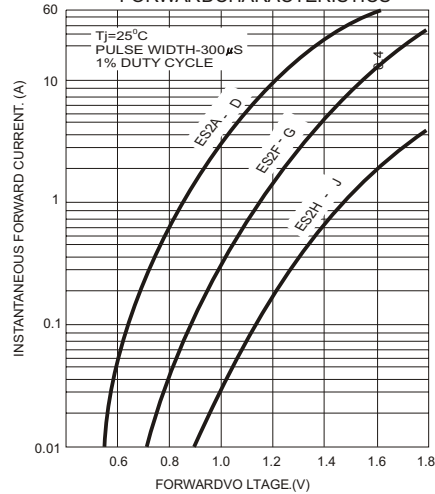


FIG.4-TYPICAL JUNCTION CAPACITANCE

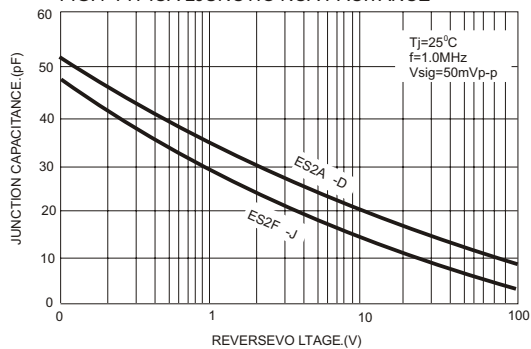


FIG.6-REVERSE RECOVERY TIME CHARACTERISTICS TEST CIRCUIT DIAGRAM

