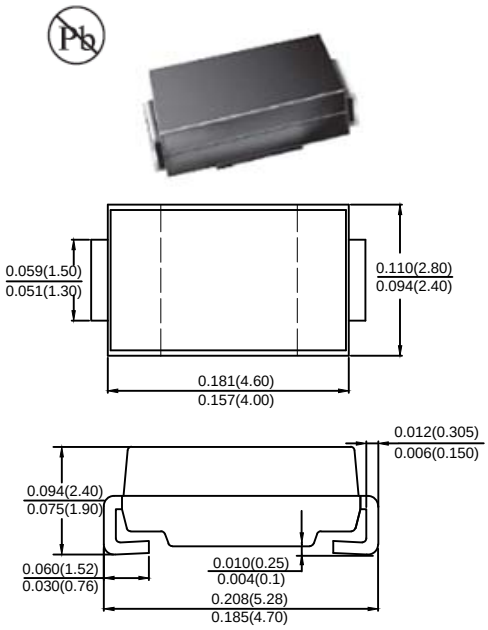
ES2A-ES2J

Surface Mount Superfast Rectifiers

Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

SMA/DO-214AC



Dimensions in inches and (millimeters)

Mechanical Date

- **Case:** JEDEC DO-214AC (SMA) molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Maximum Ratings & Thermal Characteristics

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

Type Number	SYMBOL	ES2A	ES2B	ES2D	ES2G	ES2J	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Average Rectified Output Current @T_L =100℃	IF(AV)	2.0					A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50					A
Rating for fusing (t<8.3ms)	I^2t	14.94					A^2s
Forward Voltage @IF=2.0A	V_{FM}	1.0			1.25	1.65	V
Peak Reverse Current @T_A =25℃	I_R	5.0					uA
At Rated DC Blocking Voltage @T_A =125℃		200					
Maximum Reverse Recovery Time (Note 1)	Trr	35					ns
Typical Junction Capacitance (Note 2)	C_J	40					pF
Typical Thermal Resistance Junction to Ambient(Note 3)	$R_{\theta JA}$	60					℃/W
Operating Temperature Range	T_J	-55 to+150					℃
Storage Temperature Range	T_{STG}	-55 to +150					℃

Note: 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 4.0V D.C
3. 8.0MM² (.013mm Thick) Land Areas.

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Maximum Average Forward Current Rating

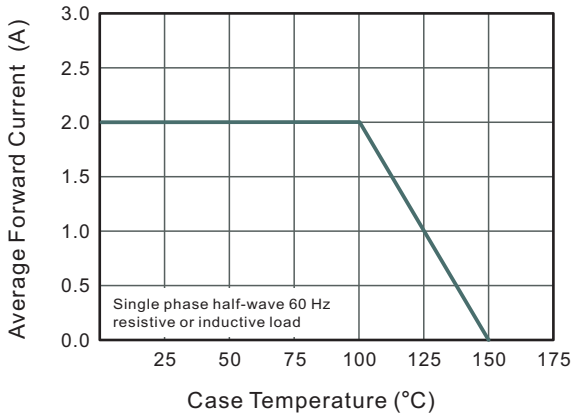


Fig.2 Typical Reverse Characteristics

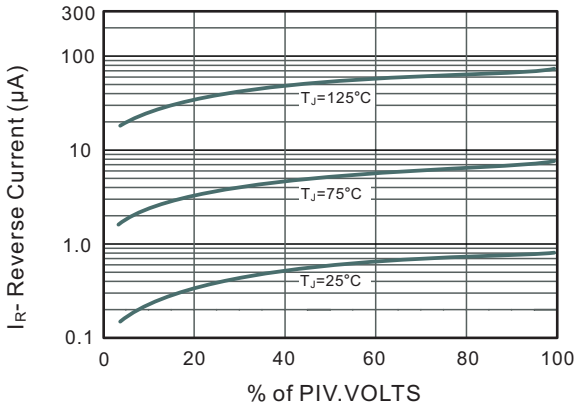


Fig.3 Typical Forward Characteristics

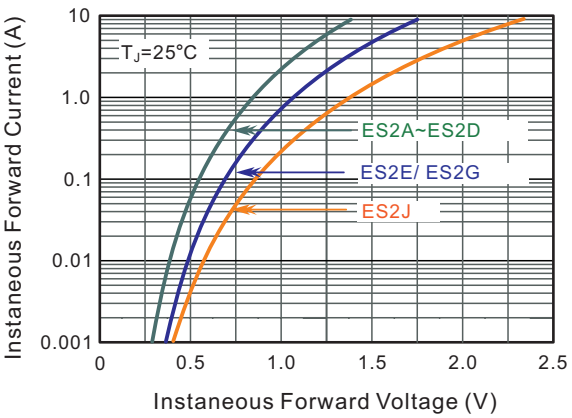


Fig.4 Typical Junction Capacitance

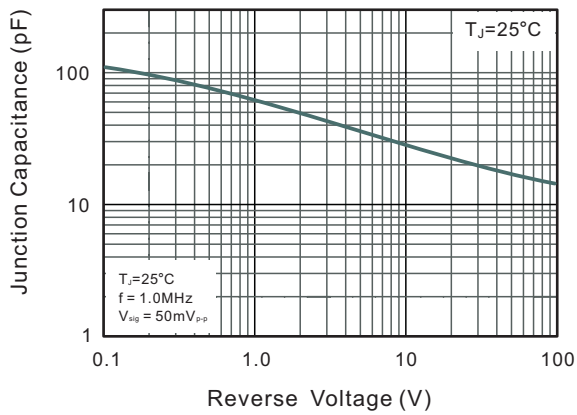
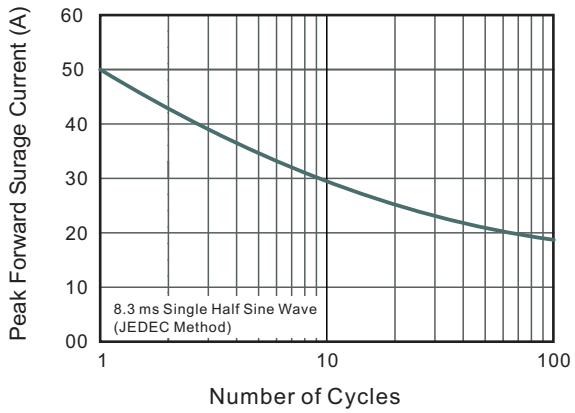


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



SMA PAD LAYOUT