

ES2A THUR ES2J Super-Fast Surface Mount Rectifiers

General description

Super-Fast Surface Mount Rectifiers

Reverse Voltage: 50 to 600V

Forward Current: 2.0A

SMA/DO214AC package

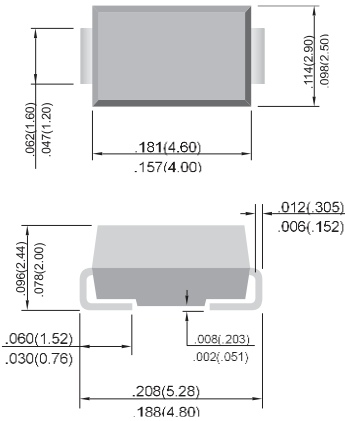
FEATURES

- 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
- In compliance with EU RoHS 2002/95/EC directives

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: 12mm tape (EIA-481)
- Weight: 0.003 ounce, 0.093 gram

SMA/DO-214AC



Unit: inch (mm)

ES2A THUR ES2J

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	SYMBOLS	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	UNIT
Marking Code	Mark	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	N/A
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at T _J =100°C	I(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	IFSM	50							Amps
Maximum Instantaneous Forward Voltage @ 2.0A	V _F	0.95			1.25	1.7		Volts	
Maximum DC Reverse Current at rated DC Blocking voltage per element	T _A =25°C	5.0							μA
	T _A =125°C	200							
Maximum Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	t _{rr}	35							nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	25			208			pF	
Typical Thermal Resistance (Note 1)	RθJA	75							°C/W
	RθJL	17							
Operating Junction Temperature Range	T _J	(-55 to +10)							°C
Storage Temperature Rang	TSTG	(-55 to +10)							°C

Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with

RATING AND CHARACTERISTIC CURVES ES2A THRU ES2J

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

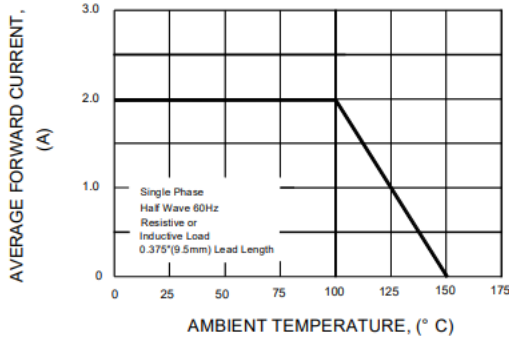


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

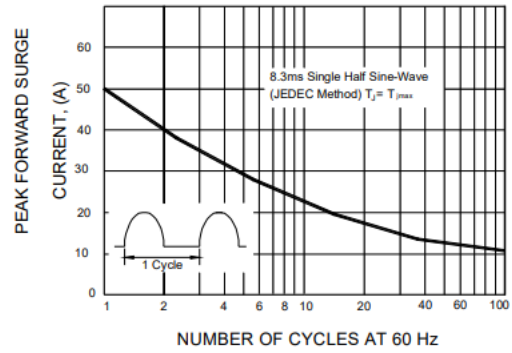


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

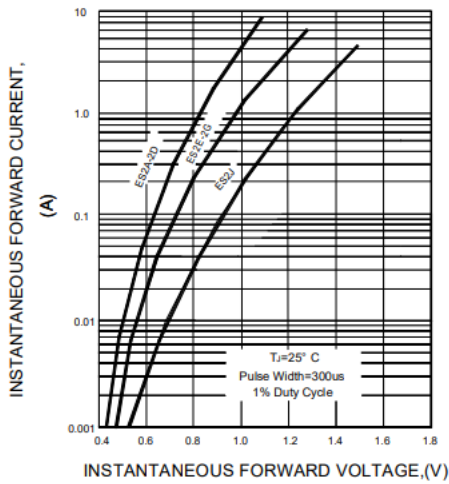


FIG.4-TYPICAL REVERSE CHARACTERISTICS

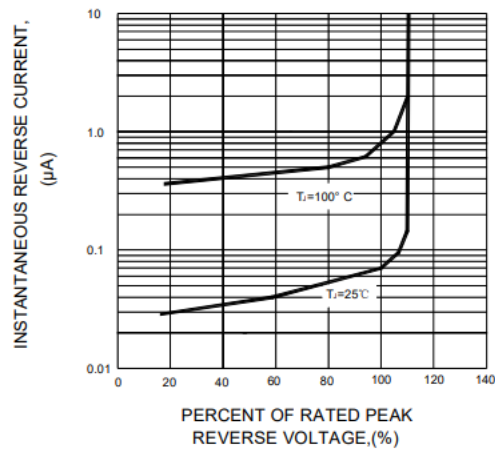


FIG.5-TYPICAL JUNCTION CAPACITANCE

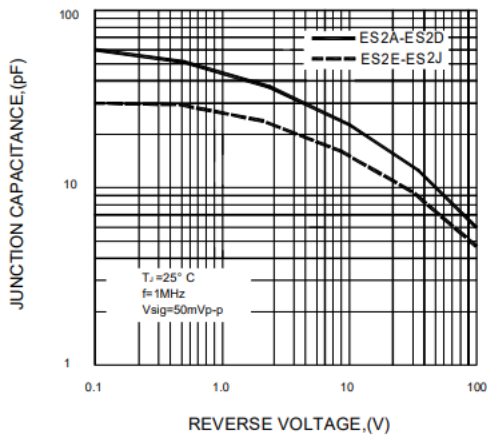


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

