

ES5A THUR ES5J

ES5A THUR ES5J Super-Fast Surface Mount Rectifiers

General description

Super-Fast Surface Mount Rectifiers
Reverse Voltage: 50 to 600V
Forward Current: 5.0A
SMB/DO214AA package

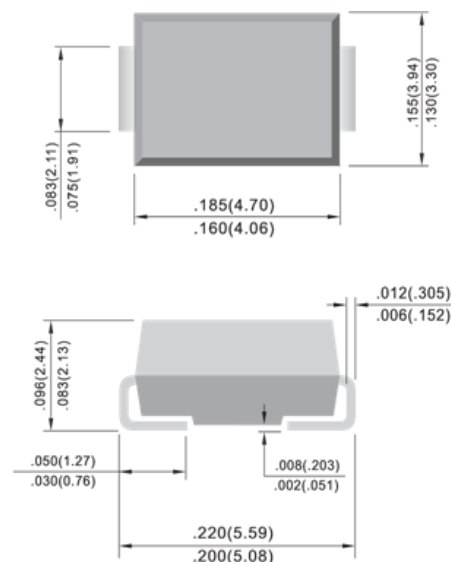
FEATURES

- 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-O

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: Indicated by cathode band.
- Weight: 0.003ounce, 0.093 gram

SMB/DO-214AA



Unit: inch (mm)

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

Characteristic	Symbol	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	Unit
Marking Code	Mark	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	N/A
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	150	200	300	400	600	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	105	140	210	280	420	V
Average Rectified Output Current @T _L = 75°C	I _O	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100							A
Forward Voltage @I _F = 3.0A	V _{FM}	0.1				1.25	1.7		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	5.0 100							μA
Reverse Recovery Time (Note 1)	t _{rr}	35							nS
Typical Junction Capacitance (Note 2)	C _j	50							pF
Typical Thermal Resistance (Note 3)	R _{JL}	45							°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150							°C

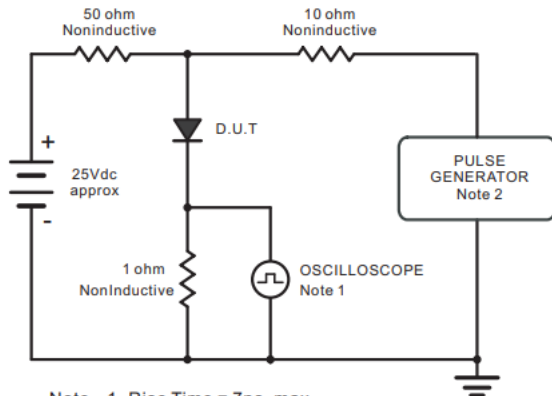
Note: 1. Pulse Test with PW=300usec, 1% Duty Cycle.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

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RATING AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

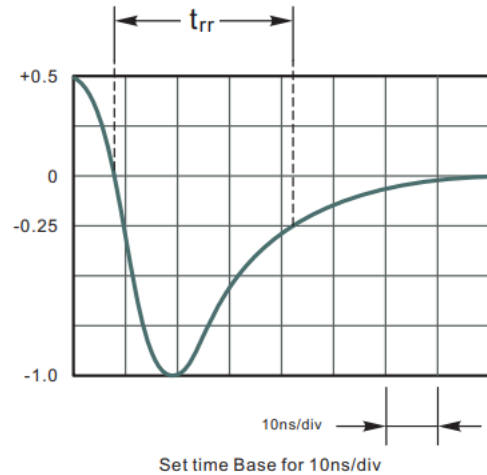


Fig.2 Maximum Average Forward Current Rating

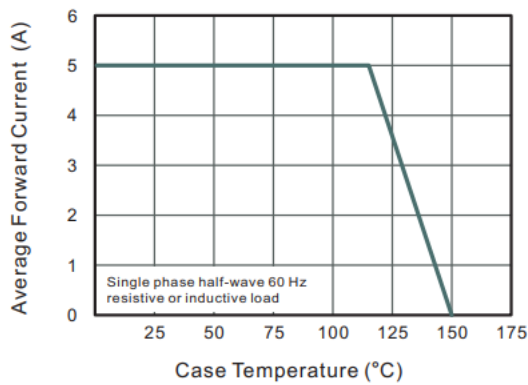


Fig.3 Typical Reverse Characteristics

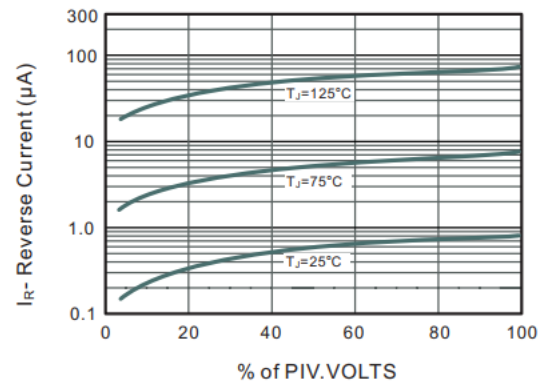


Fig.4 Typical Forward Characteristics

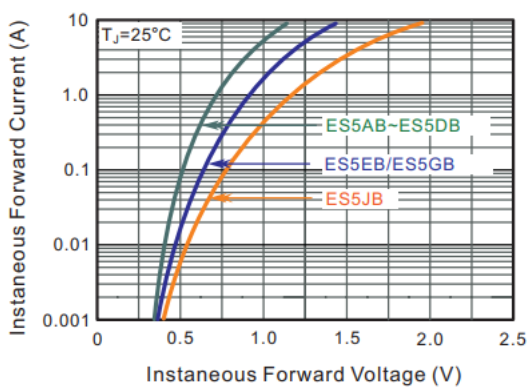


Fig.5 Typical Junction Capacitance

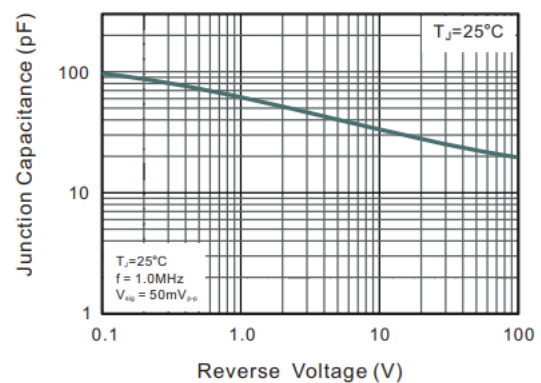
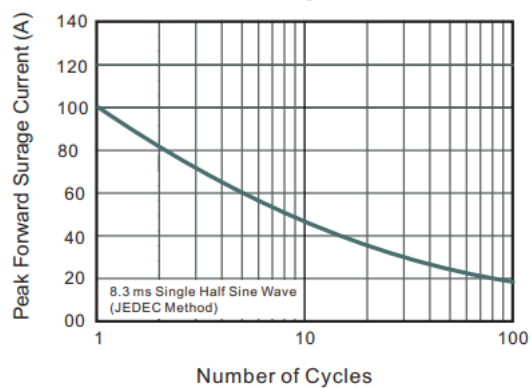


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



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