



ES5ABH THRU ES5JBH

SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

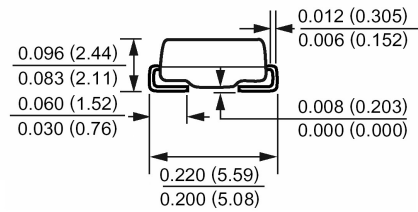
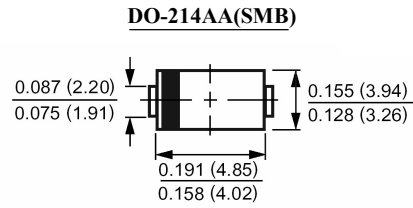
REVERSE VOLTAGE: 50 to 600 VOLTS
FORWARD CURRENT: 5.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass Passivated Die Construction
- For surface mounted applications
- Low profile package
- Easy pick and place
- Built-in strain relief
- Superfast recovery times for high efficiency
- Suffix "H" indicates Halogen-free parts, ex. ES5ABH

MECHANICAL DATA

Case : Molded plastic, DO-214AA(SMB)
 Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
 Polarity : Color band denotes cathode end



Dimensions in inches and (millimeters)

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%.

Parameter	Symbols	ES5ABH	ES5BBH	ES5CBH	ES5DBH	ES5EBH	ES5GBH	ES5JBH	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	
Maximum Average Forward Rectified Current	$I_{(AV)}$	5.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							A
Maximum Forward Voltage at 5.0A (Note 1)	V_F	0.95				1.25		1.70	V
Maximum Reverse Current at $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=125^\circ\text{C}$	I_R	5.0				250			μA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20							$^\circ\text{C}/\text{W}$
Maximum Reverse Recovery Time (Note 3)	t_{rr}	35							ns
Operating Junction Temperature Range	T_j	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150							

Note :

1- Pulse test:300 μs pulse width,1% duty cycle

2- Mounted on PCB with 2.0"×2.0" (5cm×5cm) areas, 1oz. copper pad areas

3- Reverse Recovery Test Conditions: $I_F=5\text{A}$, $I_R=1\text{A}$, $I_{RR}=25\text{A}$.



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RATINGS AND CHARACTERISTIC CURVES

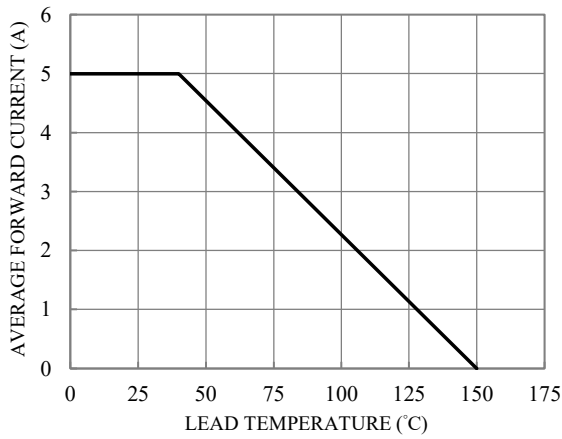


Fig.1-FORWARD CURRENT DERATING CURVE

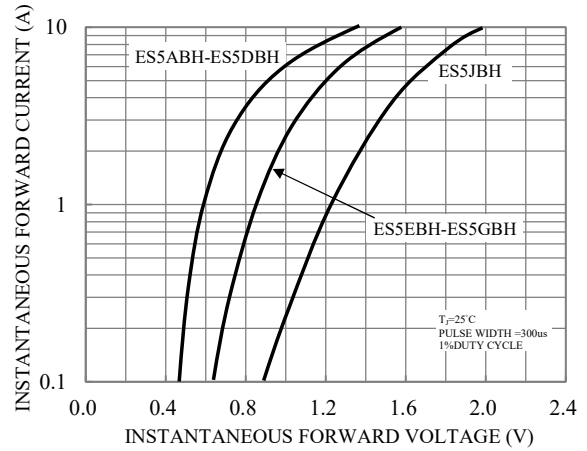


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

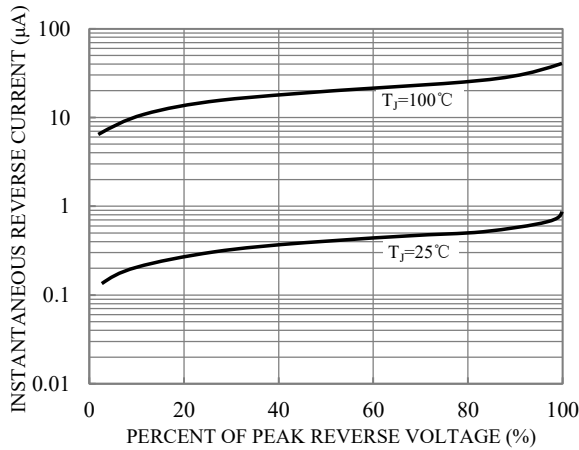


Fig.3-TYPICAL REVERSE CHARACTERISTICS

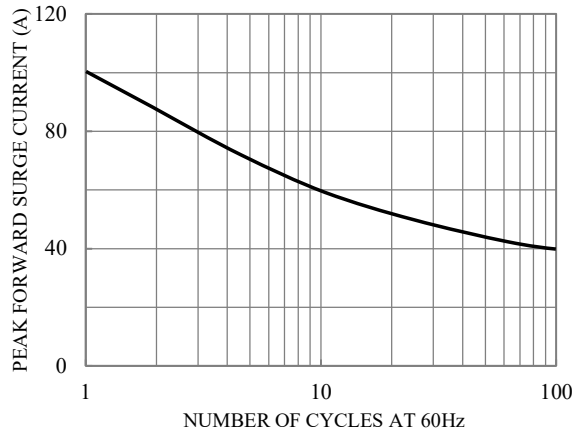


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT