



ES5AH THRU ES5JH

SURFACE MOUNT SUPERFAST RECOVERY RECTIFIERS

REVERSE VOLTAGE: 50 to 600 VOLTS

FORWARD CURRENT: 5.0 AMPERE

FEATURES

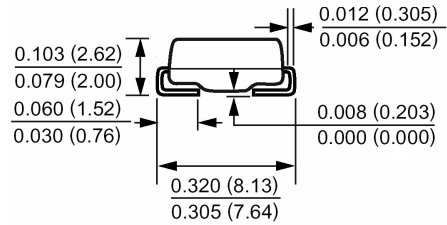
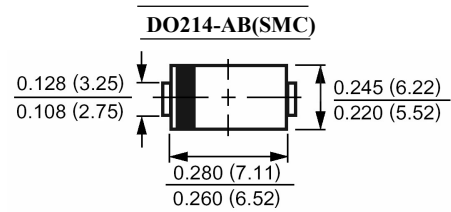
- Glass Passivated Die Construction
- For surface mounted applications
- Superfast recovery times for high efficiency
- Suffix "H" indicates Halogen-free parts, ex. ES5AH

MECHANICAL DATA

Case : Molded plastic, DO-214AB(SMC)

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	ES5AH	ES5BH	ES5CH	ES5DH	ES5EH	ES5GH	ES5JH	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	Volts	
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							Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							Amp	
Maximum Forward Voltage at 5.0A	V_F	0.95			1.30		1.70		Volts	
Maximum Reverse Current at $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R	10			250				μAmp	
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	20			$^\circ\text{C/W}$					
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35			ns					
Operating Junction Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150								

NOTES:

1- Thermal resistance from junction to lead mounted on P.C.B. with 0.6 x 0.6" (16 x 16mm) copper pad areas

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



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RATINGS AND CHARACTERISTIC CURVES

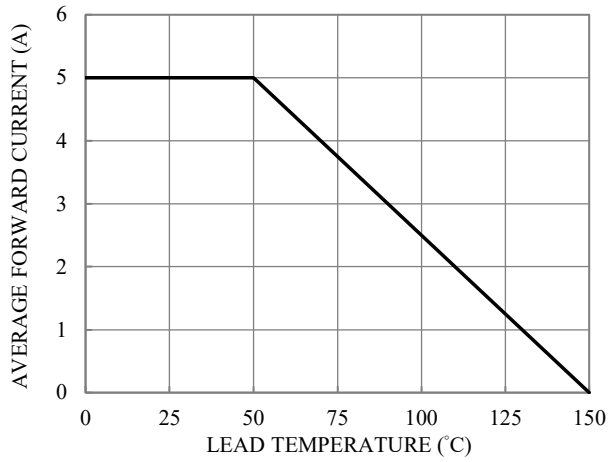


Fig.1-FORWARD CURRENT DERATING CURVE

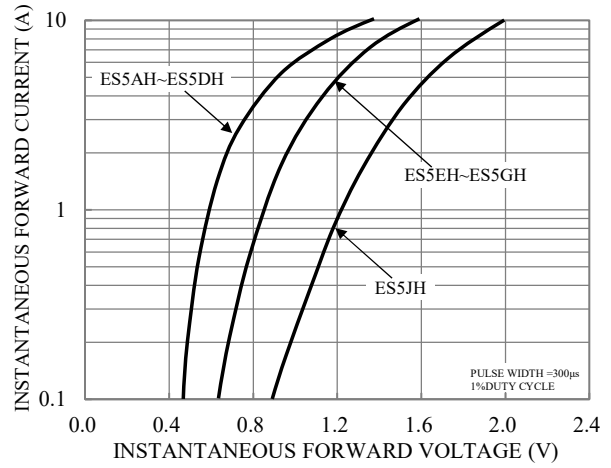


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

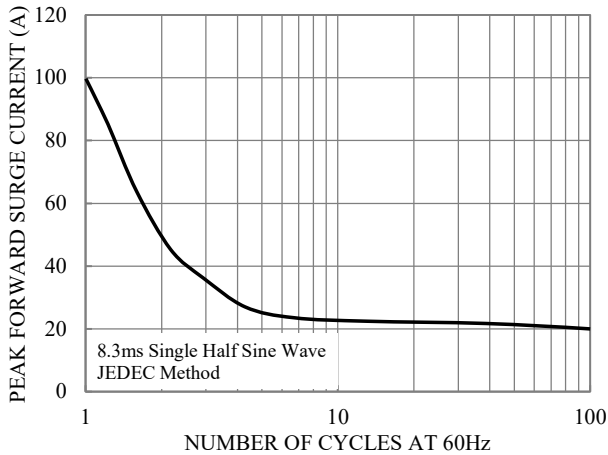


Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

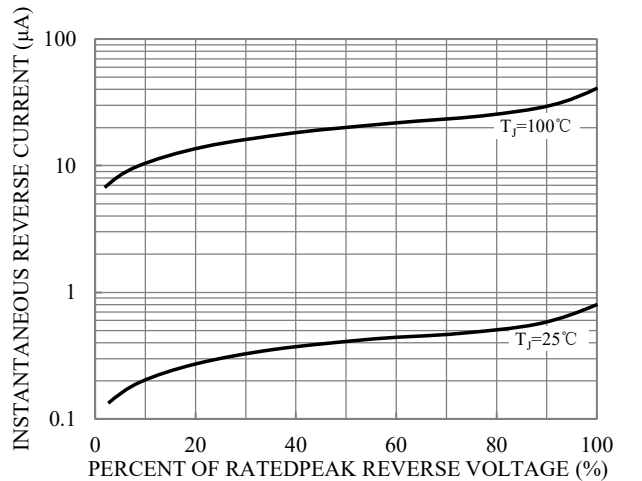


Fig.4-TYPICAL REVERSE CHARACTERISTICS