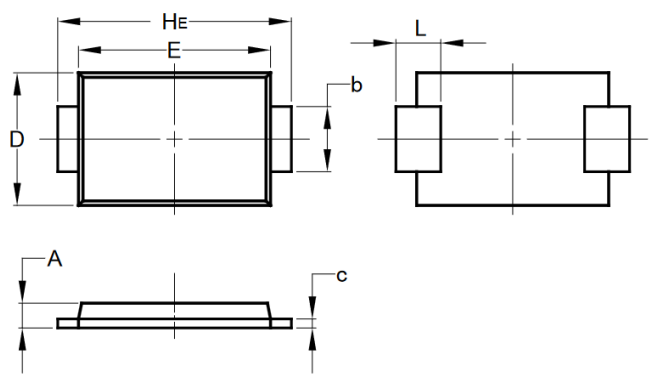
SMD Schottky Barrier Rectifier Diode

Primary characteristics		
Parameter	**Value**	**Unit**
Maximum repetitive peak reverse voltage	20 ~ 200	V
Maximum average forward rectified current	3.0	A

Features

- **SMAF** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- Built-in strain relief
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals
- Weight: 0.00095 ounce, 0.027 grams

Case dimensions

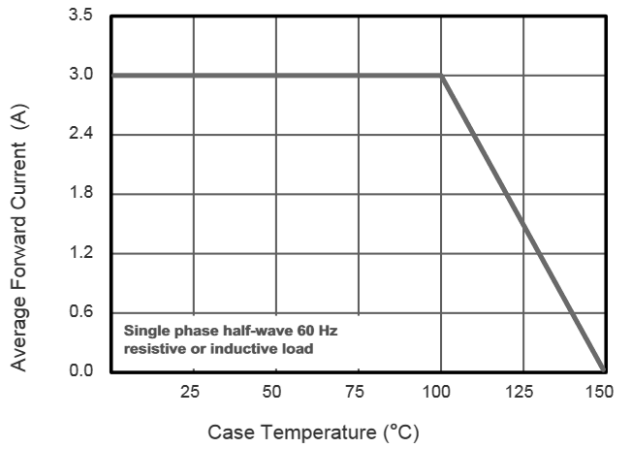


SMAF							
Unit	**A**	**b**	**c**	**D**	**E**	**H_E**	**L**
mm	1.0 ±0.1	1.45 ±0.2	0.25 ±0.15	2.6 ±0.35	4.25 -0.30 +0.35	5.2 ±0.4	1.0 ±0.5

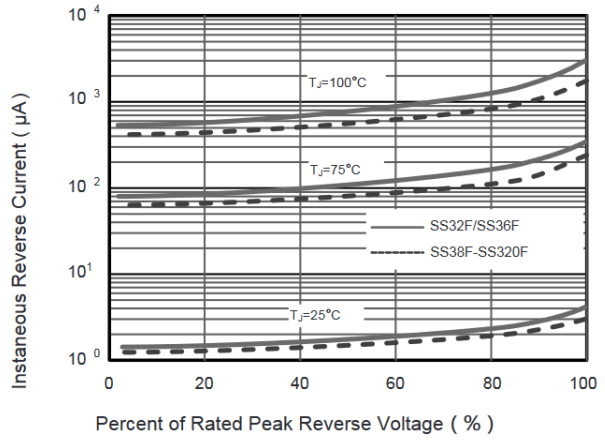
Absolute maximum ratings and general electrical characteristics (T_a = 25°C)

Parameter		Symbol	Value									Unit
			SS32F	SS33F	SS34F	SS35F	SS36F	SS38F	SS310F	SS3150F	SS3200F	
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage		V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage		V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current		$I_{F(AV)}$	3.0									A
Peak forward surge current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	80									A
Maximum instantaneous forward voltage @3.0A		V_F	0.55			0.7		0.85		0.95		V
Maximum DC reverse current at rated DC blocking voltage	T_a=25°C	I_R	0.5					0.3				mA
	T_a=100°C		5.0					3.0				mA
Typical junction capacitance @1.0MHz, V_R=4.0VDC		C_J	250			180						pF
Typical thermal resistance		$R_{\theta JA}$	70									°C/W
		$R_{\theta JC}$	18									°C/W
Operating junction and storage temperature range		T_j, T_{STG}	-55 ~ 150									°C

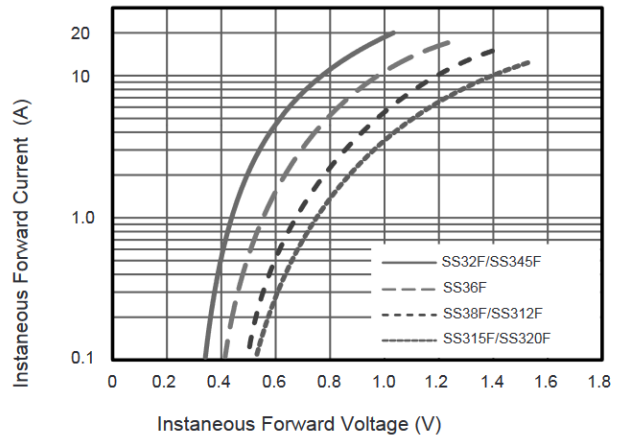
Forward current derating curve



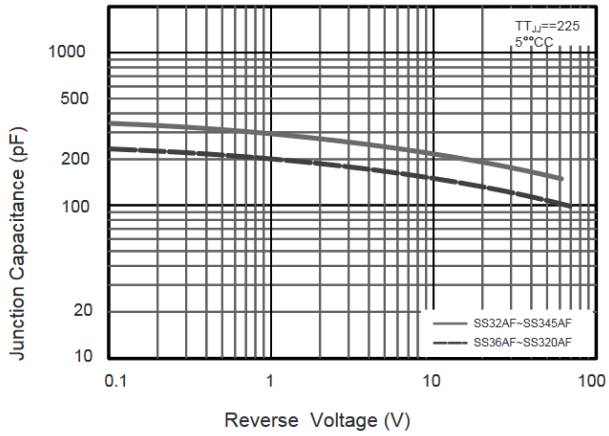
Typical reverse characteristics



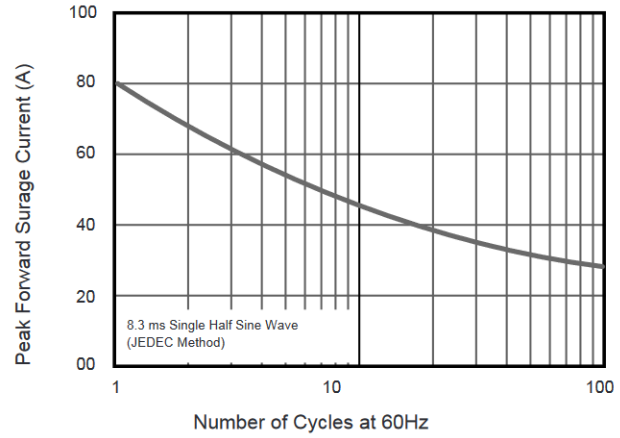
Typical forward characteristics



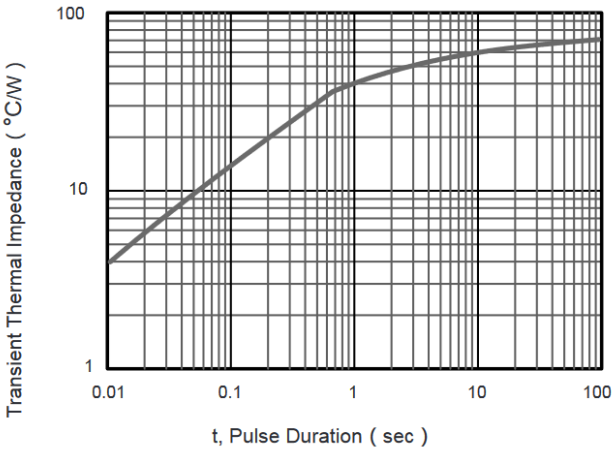
Typical junction capacitance



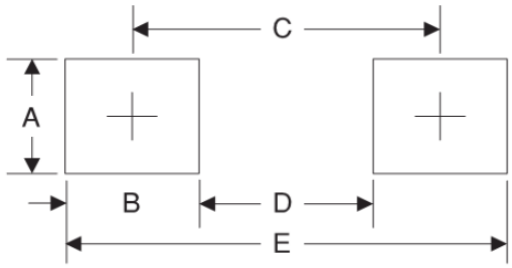
Maximum non-repetitive peak forward surge current



Typical transient thermal impedance



Suggested soldering pad layout



SMAF					
Unit	**A**	**B**	**C**	**D**	**E**
mm	1.8	1.6	3.8	2.2	5.4

Ordering information

Part Number	Package	Shipping Quantity	Dimensions
SS32F ~ SS3200F	SMAF	**3 000 pcs / 7" reel** **6 000 pcs / small box with 7" reels** **120 000 pcs / big box with 7" reels**	--- 210 x 208 x 203 mm 400 x 265 x 400 mm / 10 kg

Disclaimer

Akyga semi reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Akyga semi or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on Akyga semi data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Akyga semi does not assume any liability arising out of the application or use of any product or circuit. Akyga semi products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Akyga semi. Customers using or selling Akyga semi components for use in such applications do so at their own risk and shall agree to fully indemnify Akyga semi and its subsidiaries harmless against all claims, damages and expenditures.