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ES2F, ES2G

Vishay General Semiconductor

ELECTRICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	ES2F	ES2G	UNIT		
Maximum instantaneous forward voltage	2.0 A		V _F ⁽¹⁾	1.1		V		
Maximum reverse current at V _{RRM}		T _A = 25 °C	1-	10		μΑ		
		T _A = 100 °C	I _R	200				
Maximum reverse recovery time	$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$		t _{rr}	35		ns		
Maximum reverse recovery time	I_F = 1.0 A, dl/dt = 100 A/µs, V_R = 30 V, I_{rr} = 0.1 I_{RM}		t _{rr}	50		ns		
Maximum reverse recovery current	I_F = 1.0 A, dl/dt = 100 A/µs, V_R = 30 V, I_{rr} = 0.1 I_{RM}		I _{RM}	3.0		А		
Maximum stored charge	I_F = 1.0 A, dI/dt = 100 A/µs, V_R = 30 V, I_{rr} = 0.1 I_{RM}		Q _{rr}	50		nC		
Typical junction capacitance	4.0 V, 1 MHz		CJ	15		pF		

Note

 $^{(1)}\,$ Pulse test: 300 μs pulse width, 1 $\,\%$ duty cycle

THERMAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)							
PARAMETER	SYMBOL	ES2F	ES2G	UNIT			
Maximum thermal resistance	R _{0JA} ⁽¹⁾	75		°C/W			
	R _{0JL} ⁽¹⁾	25					

Note

 $^{(1)}\,$ Units mounted on PCB 5.0 mm x 5.0 mm (0.013 mm thick) land areas

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
ES2G-E3/52T	0.096	52T	750	7" diameter plastic tape and reel				
ES2G-E3/5BT	0.096	5BT	3200	13" diameter plastic tape and reel				
ES2GHE3_A/H ⁽¹⁾	0.096	Н	750	7" diameter plastic tape and reel				
ES2GHE3_A/I ⁽¹⁾	0.096	I	3200	13" diameter plastic tape and reel				

Note

⁽¹⁾ AEC-Q101 qualified



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RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

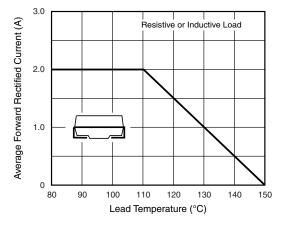


Fig. 1 - Maximum Forward Current Derating Curve

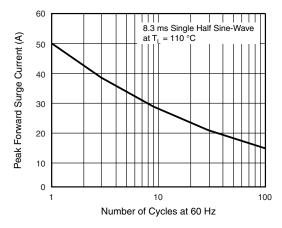


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

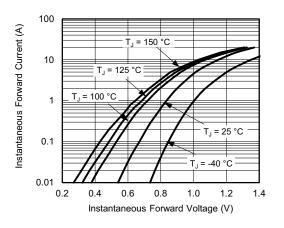


Fig. 3 - Typical Instantaneous Forward Characteristics

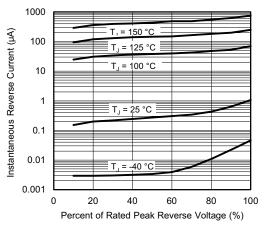


Fig. 4 - Typical Reverse Leakage Characteristics

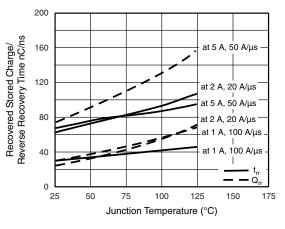


Fig. 5 - Reverse Switching Characteristics

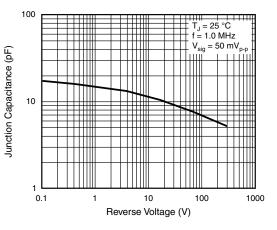


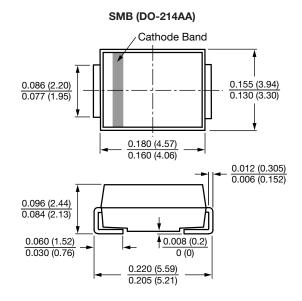
Fig. 6 - Typical Junction Capacitance

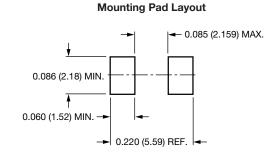
Revision: 13-May-2020 3 Document Number: 88588 For technical questions within your region: <u>DiodesAmericas@vishay.com</u>, <u>DiodesAsia@vishay.com</u>, <u>DiodesEurope@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u>

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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)







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