

www.vishay.com

Vishay General Semiconductor

ELECTRICAL CHARACTERISTICS ($T_A = 25$ °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT			
Instantaneous forward voltage	I _F = 5 A	T _A = 25 °C	V _F ⁽¹⁾	0.41	-	V			
	I _F = 10 A			0.48	0.56				
	I _F = 5 A	T _A = 125 °C		0.31	-				
	I _F = 10 A			0.41	0.49				
Reverse current	Dated V	T _A = 25 °C	I _R (2)	100	800	μA			
	Rated V _R	T _A = 125 °C		50	100	mA			
Typical junction capacitance	4.0 V, 1 MHz	4.0 V, 1 MHz		750	-	pF			

Notes

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

⁽²⁾ Pulse test: Pulse width \leq 40 ms

THERMAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise specified)								
PARAMETER	SYMBOL	SS10P3	SS10P4	UNIT				
Typical thermal resistance	R _{θJA} (1)	60		°C/W				
	$R_{ extsf{ heta}JL}$	3						

Note

⁽¹⁾ Units mounted on recommended PCB 1 oz. pad layout

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
SS10P4-M3/86A	0.10	86A	1500	7" diameter plastic tape and reel				
SS10P4-M3/87A	0.10	87A	6500	13" diameter plastic tape and reel				
SS10P4HM3_A/H ⁽¹⁾	0.10	Н	1500	7" diameter plastic tape and reel				
SS10P4HM3_A/I ⁽¹⁾	0.10	I	6500	13" diameter plastic tape and reel				

Note

⁽¹⁾ AEC-Q101 qualified



Vishay General Semiconductor

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

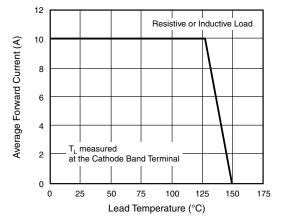


Fig. 1 - Maximum Forward Current Derating Curve

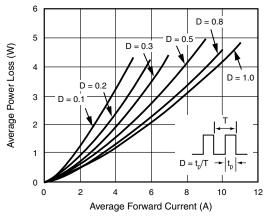


Fig. 2 - Forward Power Loss Characteristics

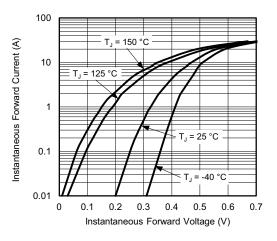


Fig. 3 - Typical Instantaneous Forward Characteristics

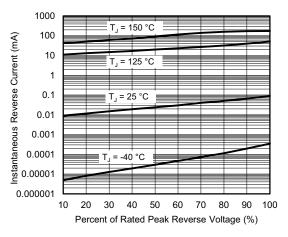


Fig. 4 - Typical Reverse Leakage Characteristics

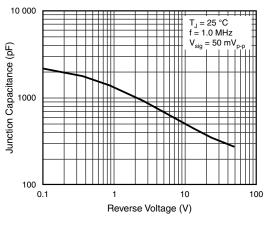


Fig. 5 - Typical Junction Capacitance

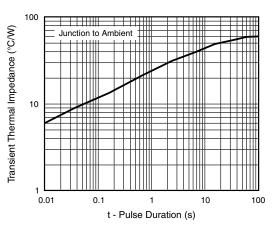


Fig. 6 - Typical Transient Thermal Impedance

Revision: 24-Apr-2020

3

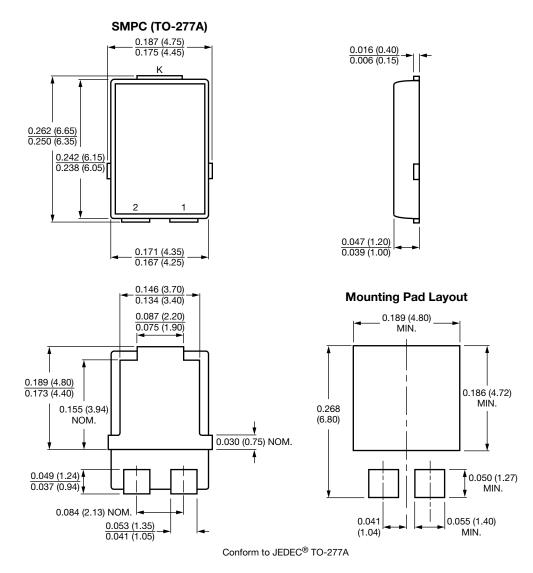
Document Number: 88983

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>



VISHAY. www.vishay.com

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

<u>SS10P4-M3/87A</u> <u>SS10P3-M3/87A</u> <u>SS10P3-M3/86A</u> <u>SS10P4-M3/86A</u> <u>SS10P4HM3_A/H</u> <u>SS10P3HM3_A/H</u> SS10P4HM3_A/I SS10P3HM3_A/I