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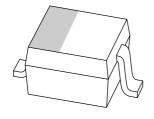
If you have any questions related to the data sheet, please contact our nearest sales office via e-mail or telephone (details via **salesaddresses@nexperia.com**). Thank you for your cooperation and understanding,

Kind regards,

Team Nexperia

DISCRETE SEMICONDUCTORS

DATA SHEET



PMEG2015EALow V_F (MEGA) Schottky barrier diode

Product data sheet Supersedes data of 2003 May 20 2004 Feb 03



Low V_F (MEGA) Schottky barrier diode

PMEG2015EA

FEATURES

Forward current: 1.5 AReverse voltage: 20 V

• Ultra high-speed switching

· Very low forward voltage

• Very small plastic SMD package.

APPLICATIONS

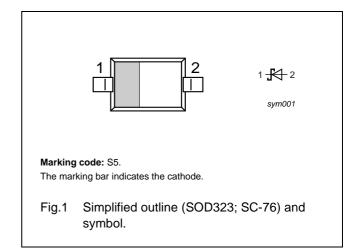
- Ultra high-speed switching
- Voltage clamping
- · Protection circuits.

DESCRIPTION

Planar Maximum Efficiency General Application (MEGA) Schottky barrier diode with an integrated guard ring for stress protection, encapsulated in a SOD323 (SC-76) very small SMD plastic package.

PINNING

PIN	DESCRIPTION
1	cathode
2	anode



ORDERING INFORMATION

TYPE NUMBER	PACKAGE		
TIPE NOWBER	NAME DESCRIPTION VERSION		
PMEG2015EA	_	plastic surface mounted package; 2 leads	SOD323

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _R	continuous reverse voltage		_	20	V
I _F	continuous forward current	T _s < 55 °C	_	1.5	Α
I _{FSM}	non-repetitive peak forward current	t _p = 8 ms square wave	_	10	Α
I _{FRM}	repetitive peak forward current	t_p = 1 ms; δ = \leq 0.25	_	4.5	Α
T _{stg}	storage temperature		-65	+150	°C
Tj	junction temperature		_	125	°C
T _{amb}	operating ambient temperature		-65	+125	°C

Low V_F (MEGA) Schottky barrier diode

PMEG2015EA

CHARACTERISTICS

 T_{amb} = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
V _F	continuous forward voltage	see Fig.2; note 1			
		I _F = 10 mA	240	270	mV
		I _F = 100 mA	300	350	mV
		I _F = 1000 mA	480	550	mV
		I _F = 1500 mA	560	660	mV
I _R	continuous reverse current	see Fig.3; note 1			
		$V_R = 5 V$	5	10	μΑ
		V _R = 8 V	7	20	μΑ
		V _R = 15 V	10	50	μΑ
C _d	diode capacitance	$V_R = 5 \text{ V}; f = 1 \text{ MHz};$ see Fig.4	19	25	pF

Note

1. Pulse test: $t_p = 300 \ \mu s$; $\delta = 0.02$.

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R _{th(j-a)}	thermal resistance from junction to ambient	note 1	450	K/W
		note 2	210	K/W
R _{th(j-s)}	thermal resistance from junction to solder point	note 3	90	K/W

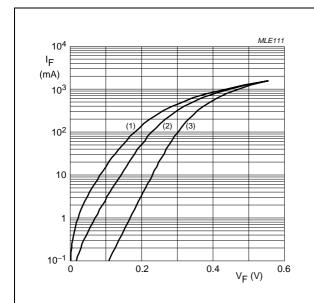
Notes

- 1. Refer to SC-76 (SOD323) standard mounting conditions.
- 2. Device mounted on a printed-circuit board with copper clad 10 x 10 mm.
- 3. Soldering point of cathode tab.

Low V_F (MEGA) Schottky barrier diode

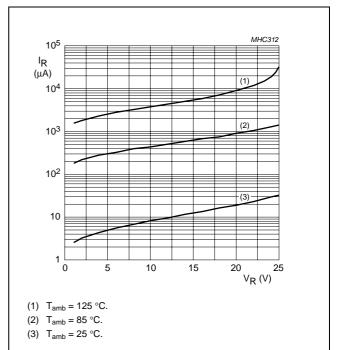
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GRAPHICAL DATA

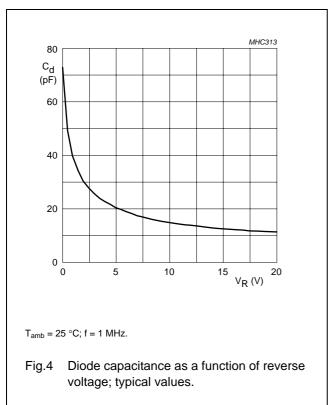


- (1) $T_{amb} = 125 \, ^{\circ}C$.
- (2) $T_{amb} = 85 \, ^{\circ}C$.
- (3) $T_{amb} = 25 \, ^{\circ}C$.

Fig.2 Forward current as a function of forward





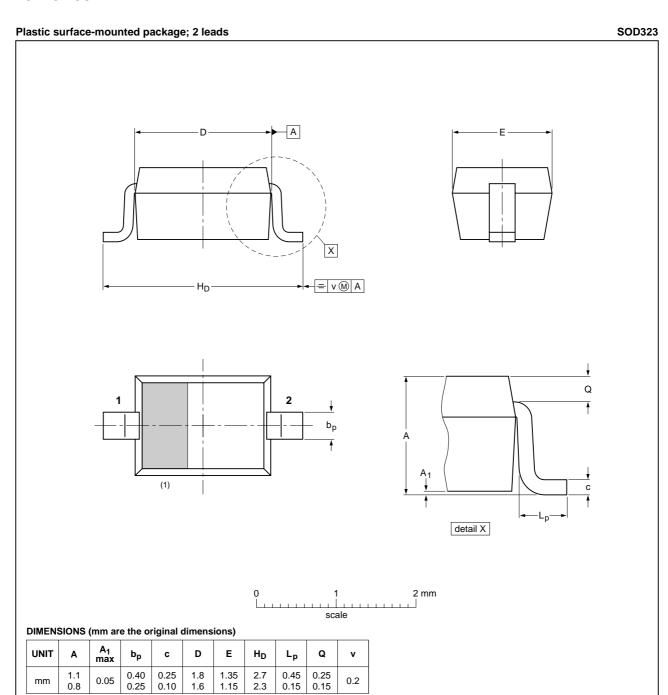


2004 Feb 03 4

Low V_F (MEGA) Schottky barrier diode

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PACKAGE OUTLINE



Note

1. The marking bar indicates the cathode

OUTLINE	REFERENCES			EUROPEAN	ISSUE DATE	
VERSION	IEC	JEDEC	JEITA		PROJECTION	ISSUE DATE
SOD323			SC-76			03-12-17 06-03-16

Low V_F (MEGA) Schottky barrier diode

PMEG2015EA

DATA SHEET STATUS

DOCUMENT STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾	DEFINITION
Objective data sheet	Development	This document contains data from the objective specification for product development.
Preliminary data sheet	Qualification	This document contains data from the preliminary specification.
Product data sheet	Production	This document contains the product specification.

Notes

- 1. Please consult the most recently issued document before initiating or completing a design.
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NXP Semiconductors

Customer notification

This data sheet was changed to reflect the new company name NXP Semiconductors, including new legal definitions and disclaimers. No changes were made to the technical content, except for package outline drawings which were updated to the latest version.

Contact information

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