



PMEG3010EP

30 V, 1 A low VF Schottky barrier rectifier

1 January 2023

Product data sheet

1. General description

Planar Schottky barrier rectifier with an integrated guard ring for stress protection, encapsulated in a SOD128 small and flat lead Surface-Mounted Device (SMD) plastic package.

2. Features and benefits

- Average forward current: $I_{F(AV)} \leq 1$ A
- Reverse voltage: $V_R \leq 30$ V
- Low forward voltage
- High power capability due to clip-bond technology
- Small and flat lead SMD plastic package
- Suitable for both reflow and wave soldering

3. Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications

4. Quick reference data

Table 1. Quick reference data

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$I_{F(AV)}$	average forward current	$\delta = 0.5$; $f = 20$ kHz; square wave; $T_{amb} \leq 130$ °C	-	-	1	A
		$\delta = 0.5$; $f = 20$ kHz; square wave; $T_{sp} \leq 145$ °C	-	-	1	A
V_R	reverse voltage	$T_j = 25$ °C	-	-	30	V
V_F	forward voltage	$I_F = 1$ A; $T_j = 25$ °C	-	320	360	mV
I_R	reverse current	$V_R = 30$ V; $T_j = 25$ °C	-	0.6	1.5	mA

[1] Device mounted on a ceramic PCB, Al₂O₃, standard footprint.

15. Legal information

Data sheet status

Document status [1][2]	Product status [3]	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
Product [short] data sheet	Production	This document contains the product specification.

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