



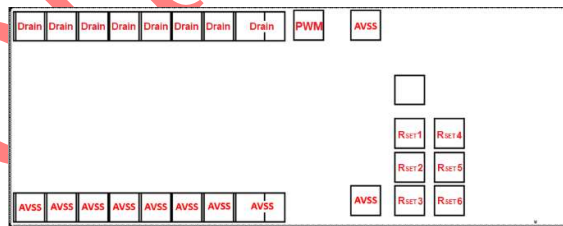
## General Descriptions

GPD3115 gate driver is designed to drive depletion mode GaN HEMTs in low-side switching applications. Tiny die sizes can be co-packaged with depletion-mode GaN HEMTs to reduce parasitic RLC. GPD3115 built-in SCP (Short-Circuit Protection) and OTP (Over-Temperature Protection) functions make GaN HEMT operation safer. Input PWM ranges are available for various PWM controller designs. In addition, the built-in slew rate control allows the selection of different  $dv/dt$  without the need for external components to adjust.

## Features

- ◆ Depletion-mode GaN HEMT Gate Driver
- ◆ PWM PIN compatibility 9 to 18V
- ◆ Over temperature protection
- ◆ Short circuit protection
- ◆ Programmable turn-on  $dv/dt$
- ◆ 30 ns typical delay time
- ◆ 10 ns Typical Rise / 10 ns Typical Fall time

## Pad Definitions



1120x2870um

Symbol	Description
R <sub>SET</sub> 1~6	$dv/dt$ setting pin
PWM	PWM input
Drain	Connect to the source terminal of GaN HEMT
AVSS	GND. Connect to the lead frame



## Absolute Maximum Ratings

Over operating free-air temperature range (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain to Source Voltage	$V_{DS}$	30	V
PWM Voltage	$V_{PWM}$	30	V
Maximum Junction Temperature	$T_{J\_MAX}$	150	°C

## ESD Ratings

Over operating free-air temperature range (unless otherwise noted)

Parameter	Symbol	Value	Unit
Human Body Model	HBM	2000	V
Charged Device Model	CDM	1000	V

## Recommended Operating Conditions

over operating free-air temperature range (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain to Source Voltage	$V_{DS}$	<28	V
PWM Voltage	$V_{PWM}$	9~20	V
Operating Ambient Temperature	$T_{OP}$	-40~125	°C