

# IRF7821

HEXFET® Power MOSFET

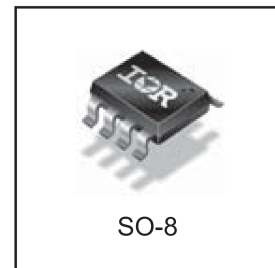
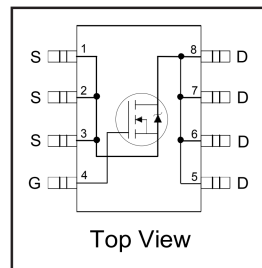
## Applications

- High Frequency Point-of-Load Synchronous Buck Converter for Applications in Networking & Computing Systems.

$V_{DSS}$	$R_{DS(on) \text{ max}}$	$Q_g(\text{typ.})$
<b>30V</b>	<b>9.1mΩ@<math>V_{GS} = 10V</math></b>	<b>9.3nC</b>

## Benefits

- Very Low  $R_{DS(on)}$  at 4.5V  $V_{GS}$
- Low Gate Charge
- Fully Characterized Avalanche Voltage and Current



## Absolute Maximum Ratings

	Parameter	Max.	Units
$V_{DS}$	Drain-to-Source Voltage	30	V
$V_{GS}$	Gate-to-Source Voltage	± 20	
$I_D @ T_A = 25^\circ\text{C}$	Continuous Drain Current, $V_{GS} @ 10V$	13.6	A
$I_D @ T_A = 70^\circ\text{C}$	Continuous Drain Current, $V_{GS} @ 10V$	11	
$I_{DM}$	Pulsed Drain Current ①	100	
$P_D @ T_A = 25^\circ\text{C}$	Power Dissipation ④	2.5	W
$P_D @ T_A = 70^\circ\text{C}$	Power Dissipation ④	1.6	
	Linear Derating Factor	0.02	W/°C
$T_J$	Operating Junction and	-55 to + 155	°C
$T_{STG}$	Storage Temperature Range		

## Thermal Resistance

	Parameter	Typ.	Max.	Units
$R_{\theta JL}$	Junction-to-Drain Lead ⑤	—	20	°C/W
$R_{\theta JA}$	Junction-to-Ambient ④⑤	—	50	

Notes ① through ⑤ are on page 10

www.irf.com