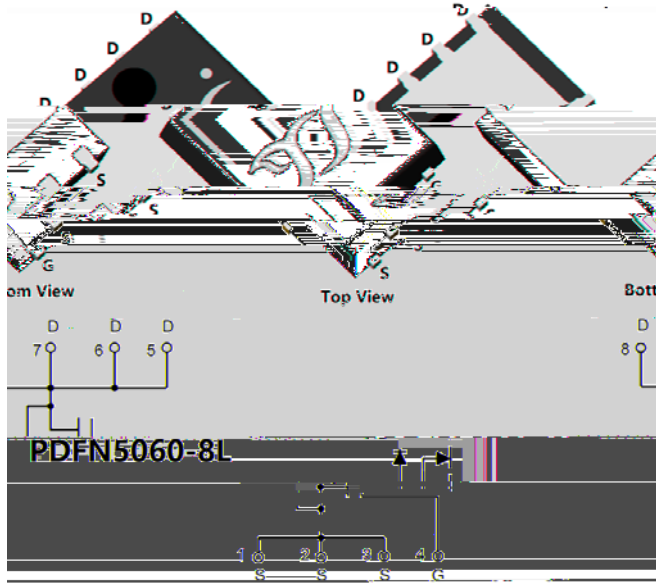


## N-Channel Enhancement Mode Field Effect Transistor



### Product Summary

$V_{DS}$	100V
$I_D$	58A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	12m
$R_{DS(ON)}$ ( at $V_{GS}=4.5V$ )	17m
100% EAS Tested	
100% $V_{DS}$ Tested	

### General Description

**Excellent package for heat dissipation**

**< high density cell design for low  $R_{DS(ON)}$**

**Moisture Sensitivity Level 1**

**Epoxy Meets UL - 0 Flammability Rating**

**Part no. with suffix  $\bar{I}$  means AEC-Q101 qualified**

### Applications

Power switching application

Uninterruptible power supply

DC-DC convertor

12V,24V and 48V Automotive system

### Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	$V_{DS}$	100	V
Gate-source Voltage	$V_{GS}$	$\pm 20$	V

Drain Current		58	
	$T_C=100$	41	
Pulsed Drain Current <sup>A</sup>	$I_{DM}$	180	A
Avalanche energy <sup>B</sup>	EAS	81	mJ
Total Power Dissipation <sup>C</sup>	$T_A=25$	2.7	W
	$T_A=100$	1.8	
	$T_C=25$	100	
	$T_C=100$	50	
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 +175	



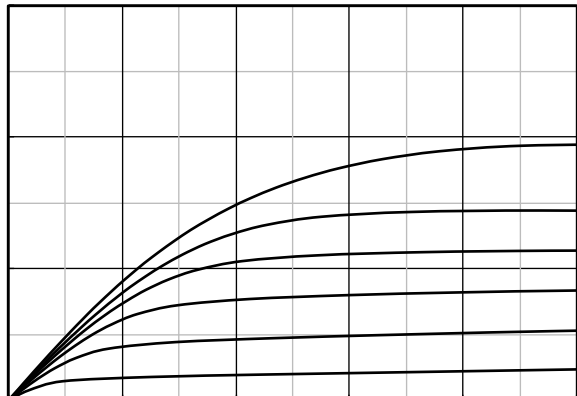
Thermal resistance





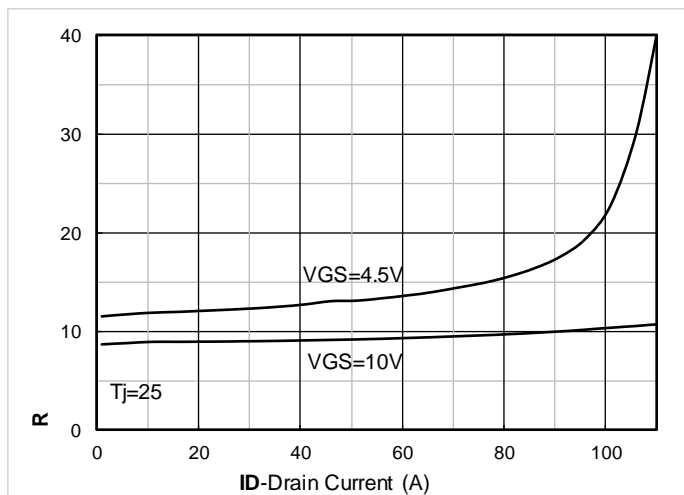


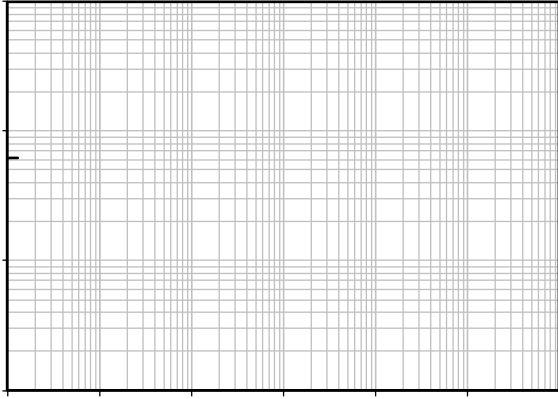
Typical Electrical and Thermal Characteristics Diagrams





# YJG58G10BQ

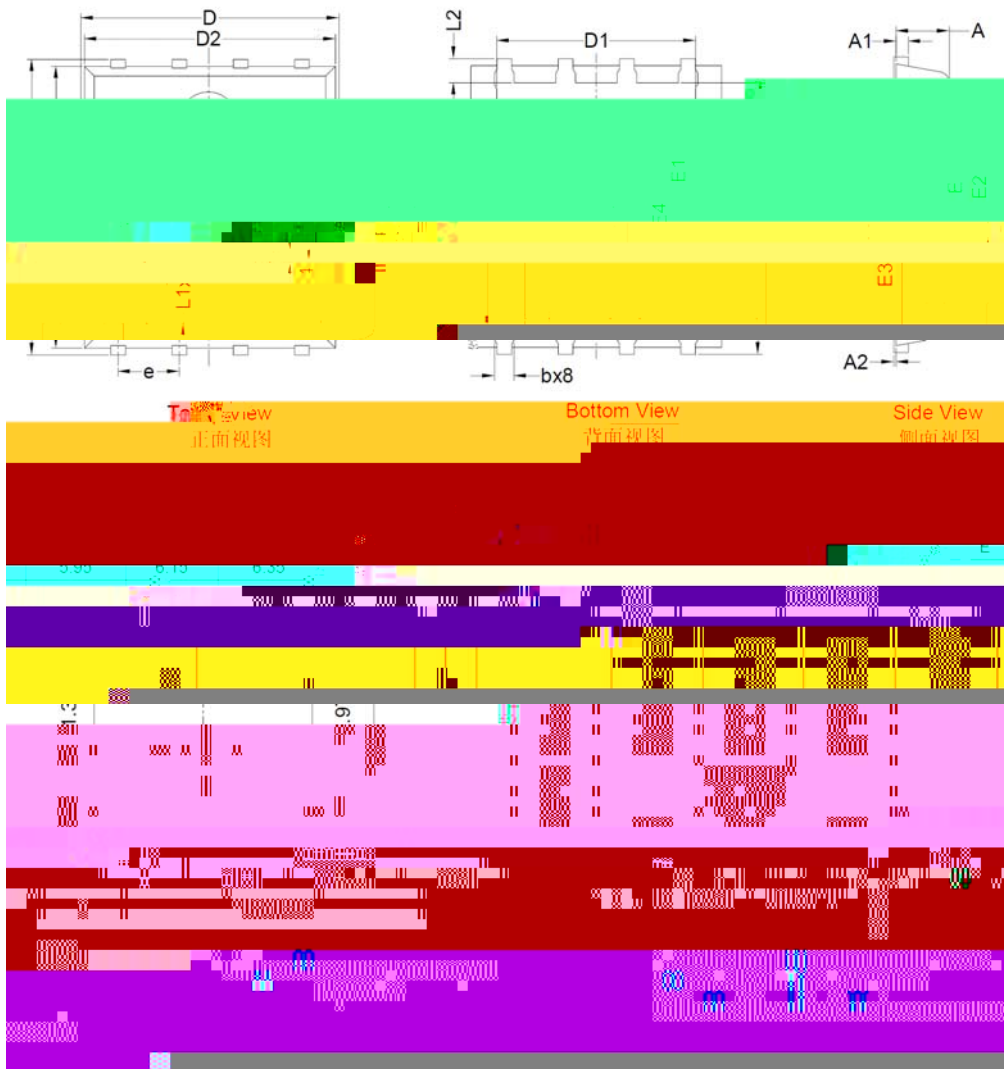






# YJG58G10BQ

## PDFN5060-8L-B-1.1MM Package information





# YJG58G10BQ

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## Disclaimer

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The product listed herein is designed to be used with automotive electronics