

## 4 Amps, 600 Volts N-CHANNEL MOSFET

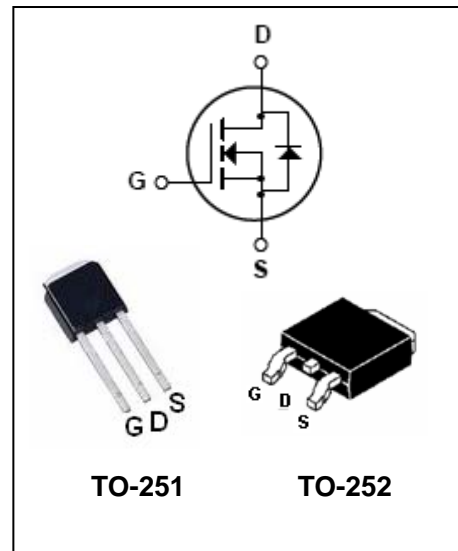
## BL4N60I/4N60D

### FEATURES

- Robust High Voltage Termination.
- Avalanche Energy Specified.
- Source-to-Drain Diode Recovery Time Comparable to a Discrete Fast Recovery Diode.
- Diode is Characterized for Use in Bridge Circuits.
- $I_{DSS}$  And  $V_{SD}$  (on) Specified at Elevated Temperature.



Lead-free



### MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
$V_{DSS}$	Drain-Source voltage	600	V
$I_D$	Drain current continuous	4	A
$V_{GSS}$	Gate -Source voltage	$\pm 30$	V
$I_{AR}$	Avalanche Current <sup>(Note2)</sup>	16	A
$P_D$	Power Dissipation $T_A=25^\circ\text{C}$	1.25	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-50 ~ +150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance Junction- Ambient Air	100	$^\circ\text{C/W}$
$R_{\theta JC}$	Thermal Resistance Junction-Case	1.78	$^\circ\text{C/W}$

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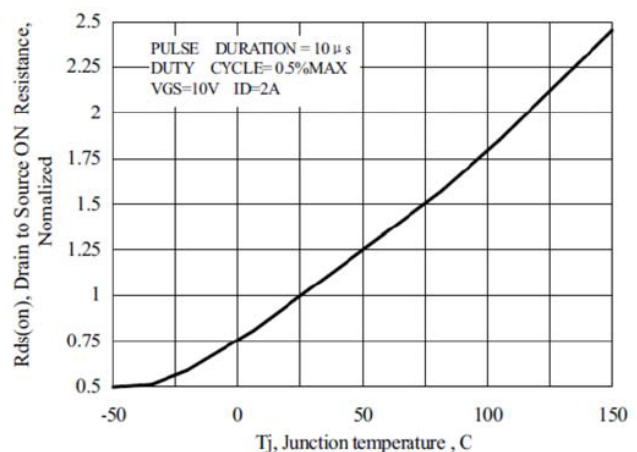
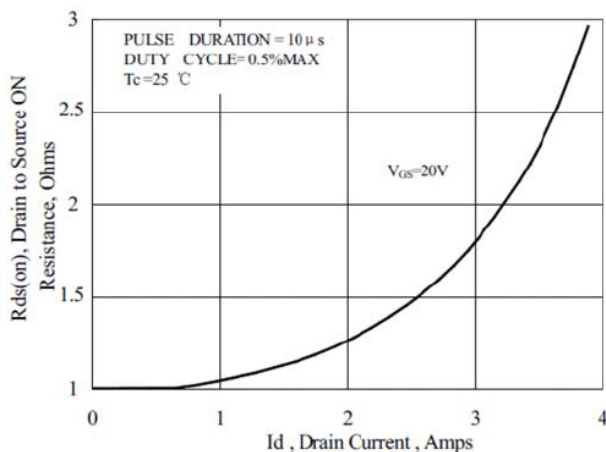
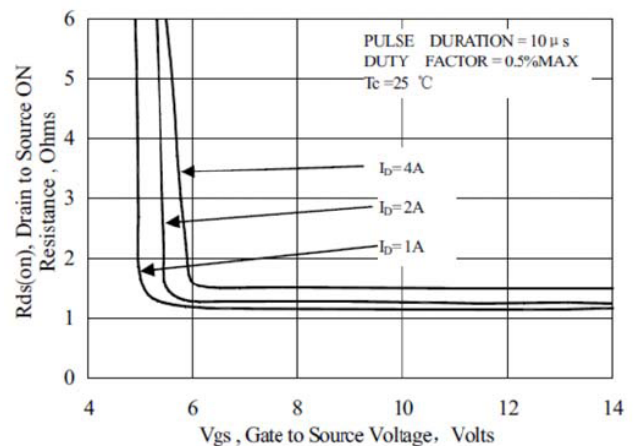
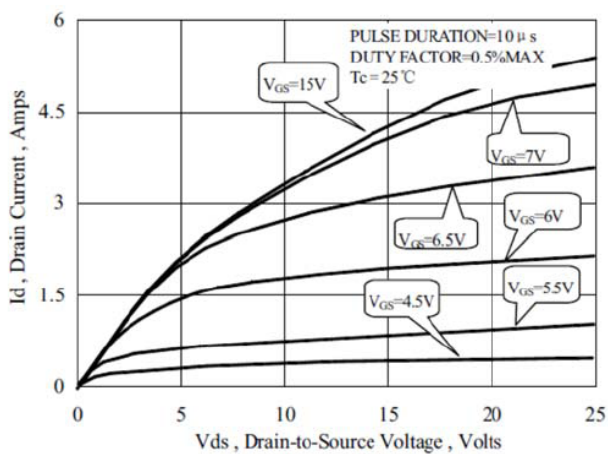
### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	600	-	-	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=600V, V_{GS}=0V$	-	-	1	$\mu A$
Gate-body Leakage	$I_{GSS}$	Forward $V_{DS}=0V, V_{GS}=20V$	-	-	1	$\mu A$
		Reverse $V_{DS}=0V, V_{GS}=-20V$	-	-	-1	
Gate Threshold Voltage (Note1)	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2.0	-	4.0	V
Static drain-Source on-resistance (Note1)	$R_{DS(on)}$	$V_{GS}=10V, I_D=2A,$	-	-	2.3	$\Omega$
Diode Forward Voltage (Note1)	$V_{SD}$	$I_{DS}=4A, V_{GS}=0V$	-	-	1.5	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V, V_{GS}=0V, f=1.0MHz$	-	560	-	pF
Output Capacitance	$C_{oss}$		-	60	-	
Reverse Transfer Capacitance	$C_{rss}$		-	4.8	-	

#### Notes:

1. Pulse Test : Pulse Width  $\leq 300\mu s$ , duty cycle  $\leq 2\%$ .

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



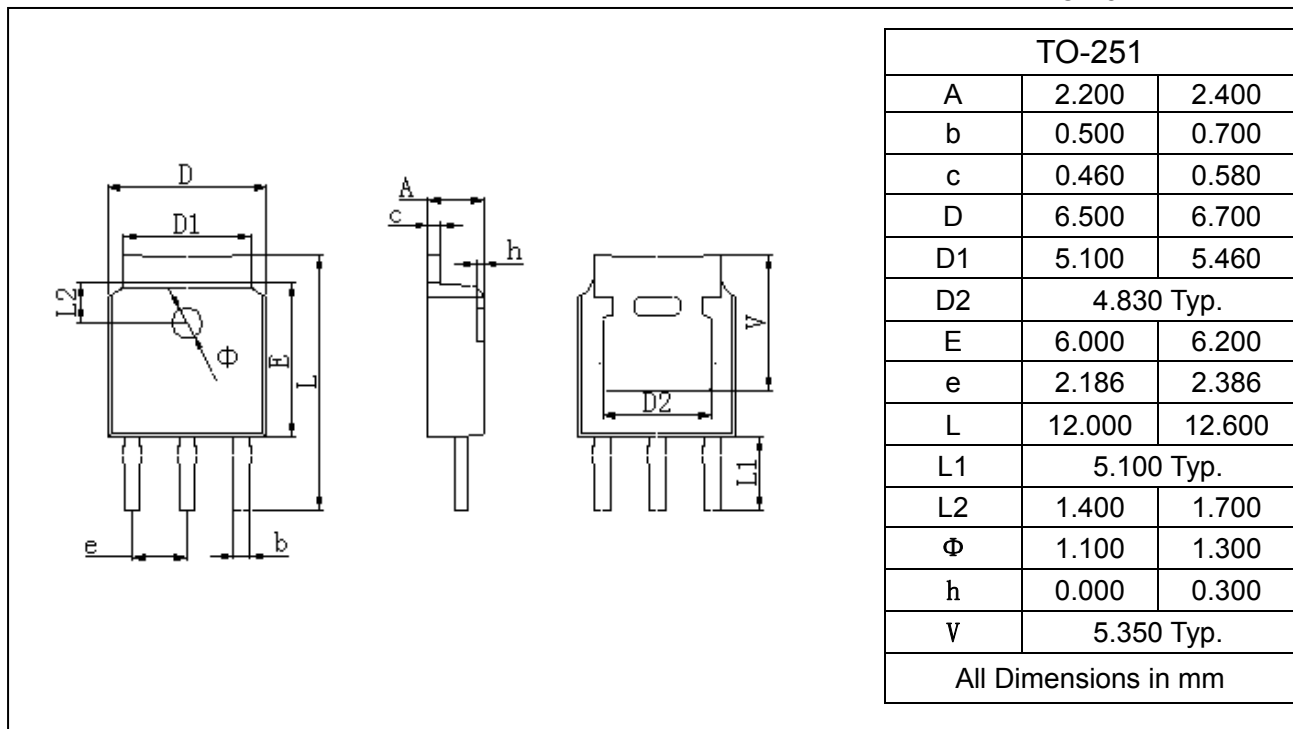
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## BL4N60I/4N60D

### PACKAGE OUTLINE

Plastic surface mounted package

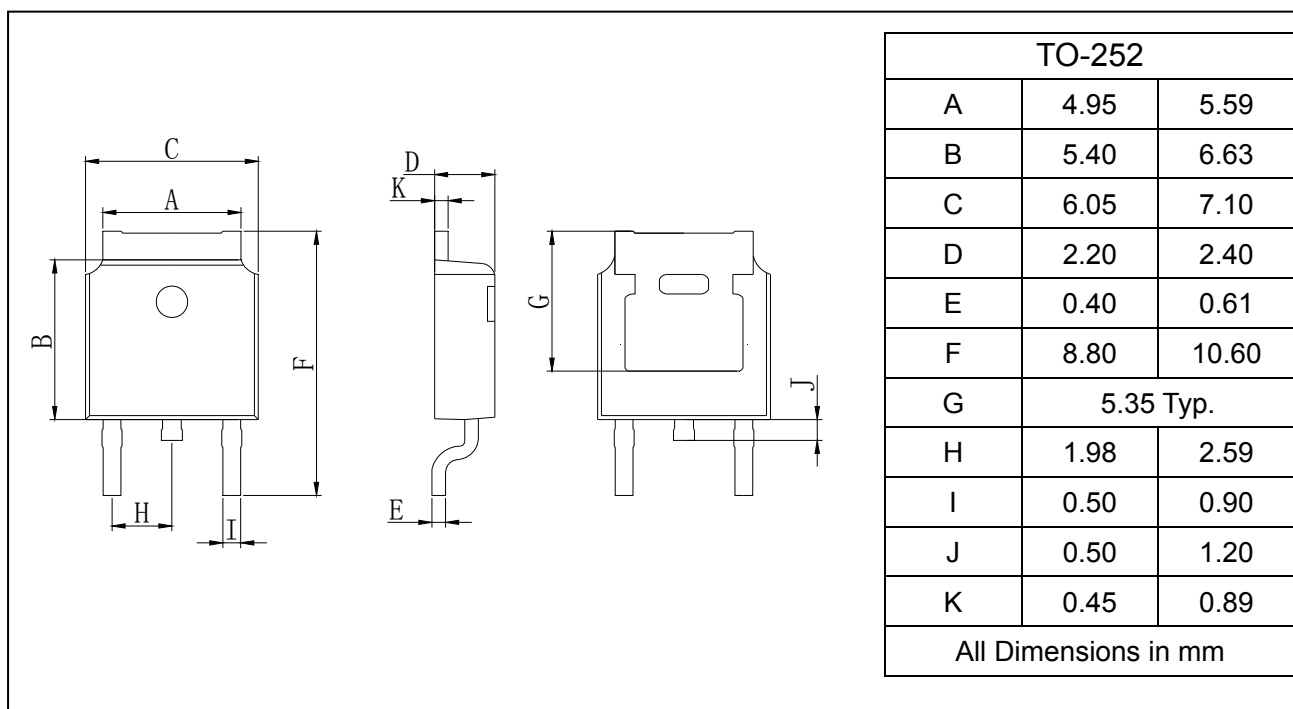
TO-251



### PACKAGE OUTLINE

Plastic surface mounted package

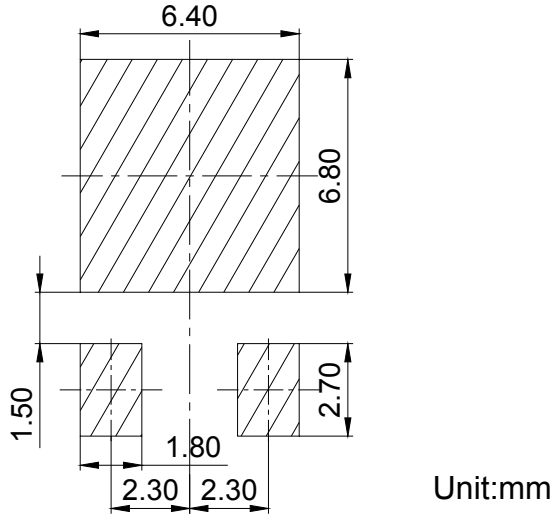
TO-252



**4 Amps, 600 Volts N-CHANNEL MOSFET**

**BL4N60I/4N60D**

**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
BL4N60I/4N60D	TO-251/252	80PCS/Tube
	TO-252	2500PCS/Tape&Reel