

isc N-Channel MOSFET Transistor

BUK9518-55A

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 16m\Omega$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

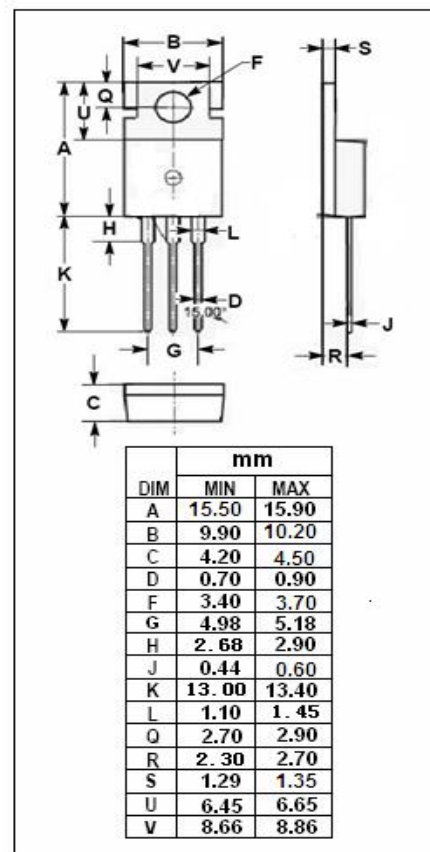
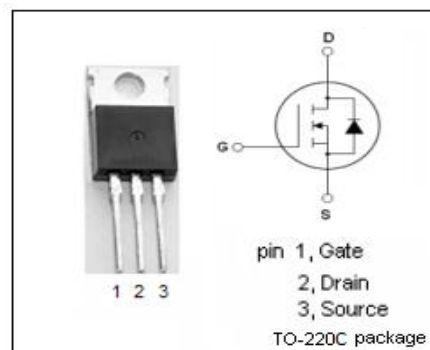
- Automotive and general purpose power switching

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	55	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	61	A
I_{DM}	Drain Current-Single Pulsed	246	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	136	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	1.1	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**BUK9518-55A****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$; $I_D=250\mu A$	55		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=250\mu A$	1	2	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V$; $I_D=25A$		16	m Ω
		$V_{GS}=5V$; $I_D=25A$		18	
		$V_{GS}=4.5V$; $I_D=25A$		19	
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 20V$; $V_{DS}=0V$		± 100	nA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=55V$; $V_{GS}=0V$		10	μA
V_{SD}	Diode forward voltage	$I_S=20A$; $V_{GS}=0V$		1.2	V

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