

isc N-Channel MOSFET Transistor

BUK9E06-55A

DESCRIPTION

- Drain Source Voltage
: $V_{DS} = 55V(\text{Min})$
- Low $R_{DS(ON)}$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

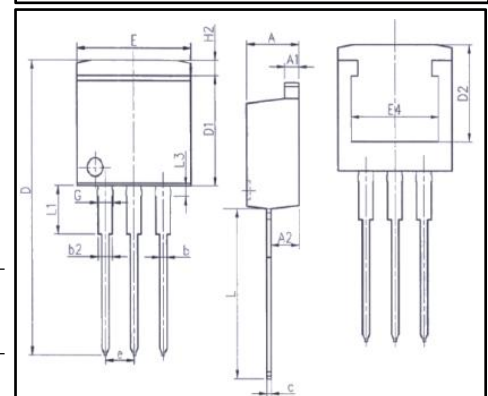
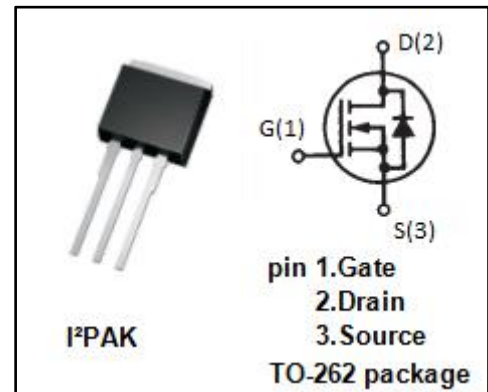
- Designed for Switched Mode Power Supplies (SMPS), motor control, welding, and in general purpose switching resistance applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage ($V_{GS}=0$)	55	V
V_{GS}	Gate-Source Voltage	± 15	V
I_D	Drain Current-continuous@ $TC=25^\circ\text{C}$	75	A
P_{tot}	Total Dissipation@ $TC=25^\circ\text{C}$	300	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55-175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.5	$^\circ\text{C/W}$



DIM	MM	
	MIN	MAX
A	4.37	4.77
A1	1.22	1.42
A2	2.47	2.87
b	0.7	0.97
b2	1.17	1.42
c	0.28	0.53
D	23.2	24.02
D1	8.38	8.9
D2	6	/
E	9.9	10.39
E4	7.3	/
E	2.54BSC	
G	1.25	1.5
H2	/	1.31
L	13.34	14.1
L1	3.3	4.06
L3	0.95	1.15

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ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	55	--	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 1.0mA	1	2	V
R _{DS(on)1}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 25A	--	5.8	mΩ
R _{DS(on)2}	Drain-Source On-stage Resistance	V _{GS} = 5V; I _D = 25A	--	6.3	mΩ
R _{DS(on)3}	Drain-Source On-stage Resistance	V _{GS} = 4.5V; I _D = 25A	--	6.7	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±10V; V _{DS} = 0	--	±100	n A
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 55V; V _{GS} = 0	--	10	uA
V _{SD}	Forward On-Voltage	I _S = 30A; V _{GS} = 0	--	1.2	V

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