isc N-Channel MOSFET Transistor BFD88
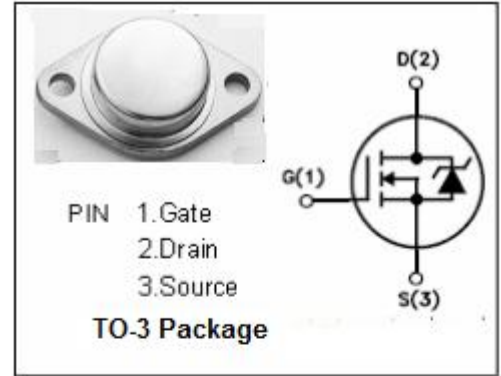
DESCRIPTION

· V_{GS} Rated at $\pm$ 30 V

· High Voltage Power MOSFET

· 100% avalanche tested

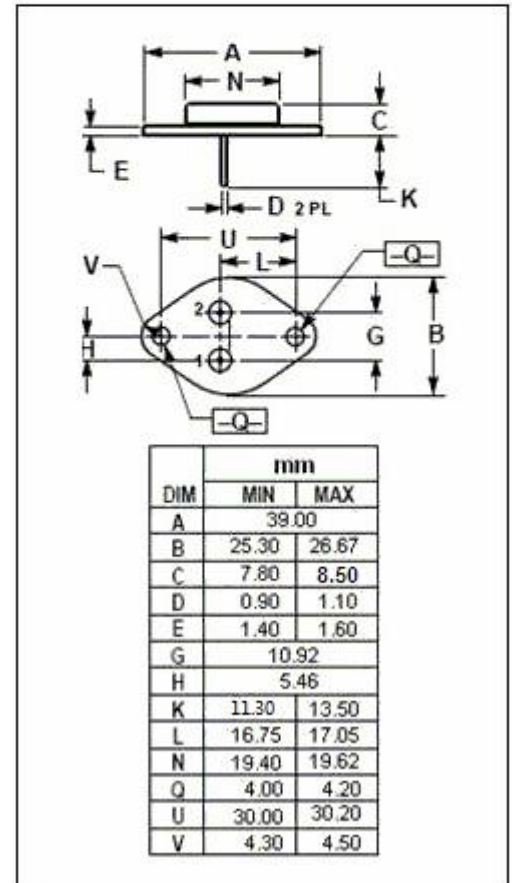· Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

· designed for general purpose

PIN 1.Gate
      2.Drain
      3.Source

TO-3 Package

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	400	V
V_{GS}	Gate-Source Voltage	$\pm$30	V
I_D	Drain Current-continuous@ TC=25℃	17	A
P_{tot}	Total Dissipation@TC=25℃	198	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	0.68	℃/W
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	30	℃/W

DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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• ELECTRICAL CHARACTERISTICS (T$_C$=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V$_{(BR)DSS}$	Drain-Source Breakdown Voltage	V$_{GS}$= 0; I$_D$= 0.25mA	400		V
V$_{GS(TH)}$	Gate Threshold Voltage	V$_{DS}$= V$_{GS}$; I$_D$= 1mA	2	4	V
R$_{DS(ON)}$	Drain-Source On-stage Resistance	V$_{GS}$= 10V; I$_D$= 8.5A		0.3	Ω
I$_{GSS}$	Gate Source Leakage Current	V$_{GS}$= ±30V;V$_{DS}$= 0		±100	nA
I$_{DSS}$	Zero Gate Voltage Drain Current	V$_{DS}$= 400V; V$_{GS}$= 0		0.25	mA
V$_{SD}$	Diode Forward Voltage	I$_F$= 17A; V$_{GS}$= 0		1.3	V

• SWITCHING CHARACTERISTICS (T$_C$=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Td(on)	Turn-on Delay Time	V$_{DD}$=0.5V$_{DSS}$,I$_D$=I$_D$(CON.T) R$_G$=1.8Ω		13	25	ns
Tr	Rise Time			24	47	ns
Td(off)	Turn-off Delay Time			50	75	ns
Tf	Fall Time			20	52	ns