

isc N-Channel MOSFET Transistor

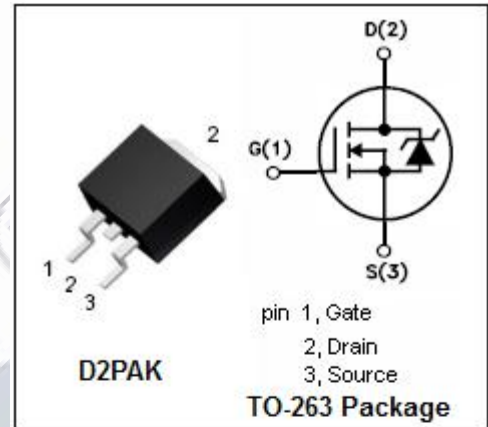
ISCB1846

DESCRIPTION

- Drain Current $-I_D=120A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}= 55V(\text{Min})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

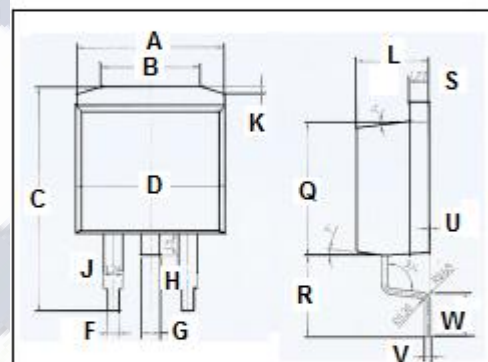
APPLICATIONS

- DC/DC Converter
- Ideal for high-frequency switching and synchronous rectification



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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	55	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^{\circ}C$	120	A
I_{DM}	Drain Current-Single Pulsed	320	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}C$	160	W
T_j	Max. Operating Junction Temperature	-55~175	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}C$



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.94	$^{\circ}C/W$

isc N-Channel Mosfet Transistor**ISCB1846****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	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 =0.25mA	2.5		4.5	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D = 60A			5.5	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =55V; V _{GS} = 0			1	uA
V _{SD}	Forward On-Voltage	I _S = 120A; V _{GS} =0			1.2	V