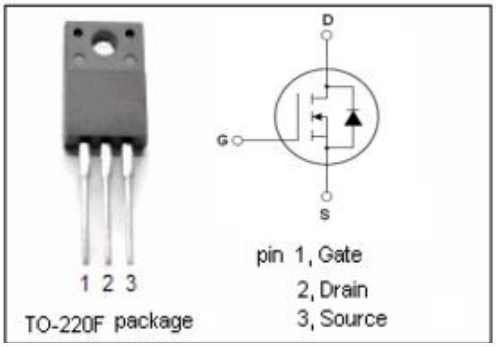
isc N-Channel MOSFET Transistor MDF18N50TH

• FEATURES

- Drain-source on-resistance:
  $R_{DS}(on) \leq 0.27\Omega$ (max)
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

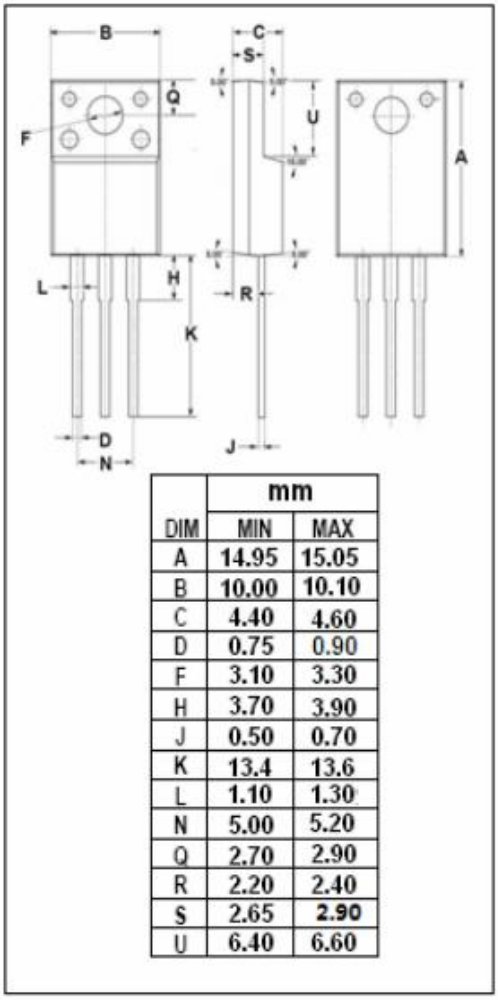


• DESCRITION

- Power Supply
- High Current, High Speed Switching

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	18	A
I_{DM}	Drain Current-Single Pulsed	72	A
P_D	Total Dissipation @T_C=25℃	37	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	3.4	℃/W

isc N-Channel MOSFET Transistor MDF18N50TH

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= 0.25mA	500			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=0.25mA	3.0		5.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=9A			0.27	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=500V; V_{GS}= 0V			1	μA
V_{SD}	Diode forward voltage	I_{DR} =18A, V_{GS} = 0 V			1.4	V