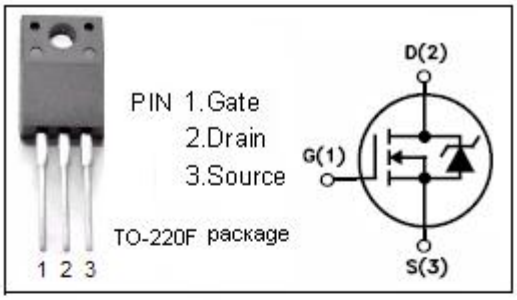
isc N-Channel MOSFET Transistor 50N06FI

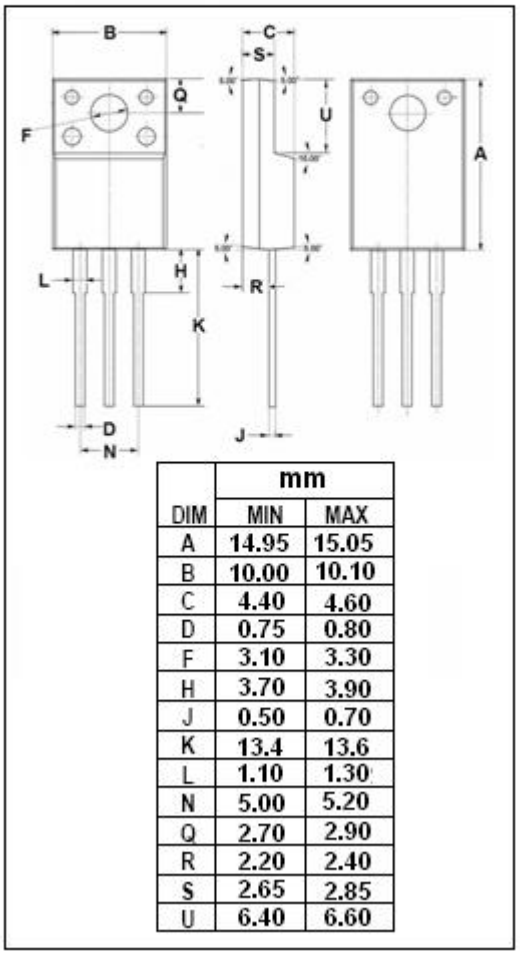
DESCRIPTION

- Drain Current I_D=27A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=60V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 28mΩ(Max)
- Fast Switching Speed
- Low Drive Requirement
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- High current , high speed switching
- Switch mode power supplies
- DC-DC converters for telecom, industrial,and lighting equipment ideal for monitor's B+ function



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
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	2.85
U	6.40	6.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	60	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	27	A
	Drain Current-continuous@ TC=100℃	19	
P_{tot}	Total Dissipation@TC=25℃	45	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W

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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	60		V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	2	4	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 10V; I_D= 25A		0.028	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 60V; V_{GS}= 0		250	uA
V_{SD}	Diode Forward Voltage	I_F= 50A; V_{GS}= 0		2.0	V