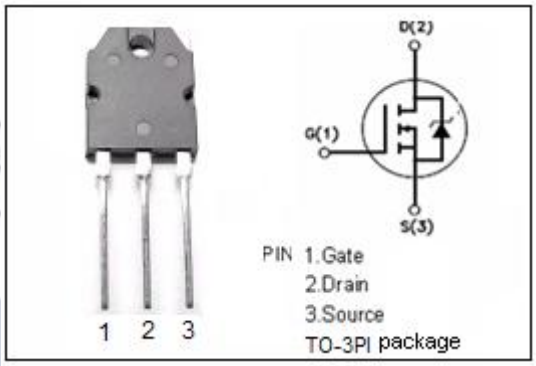
isc N-Channel MOSFET Transistor 2SK789

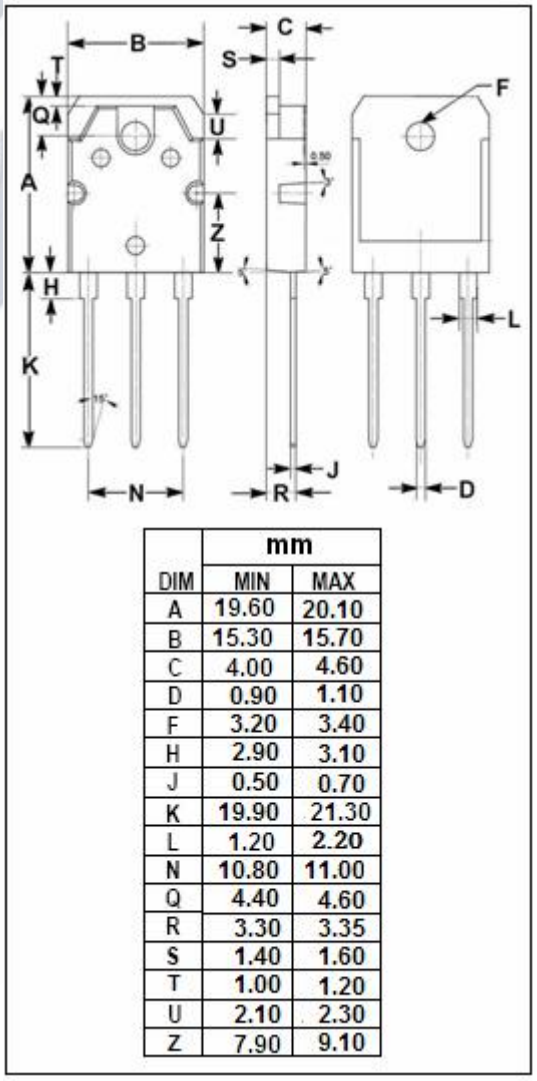
DESCRIPTION

- Drain Current –I_D=15A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 450V(Min)
- Fast Switching Speed



APPLICATIONS

- Designed for high voltage, high speed power switching applications such as switching regulators, converters, solenoid and relay drivers.



DIM	mm MIN	MAX
A	19.60	20.10
B	15.30	15.70
C	4.00	4.60
D	0.90	1.10
F	3.20	3.40
H	2.90	3.10
J	0.50	0.70
K	19.90	21.30
L	1.20	2.20
N	10.80	11.00
Q	4.40	4.60
R	3.30	3.35
S	1.40	1.60
T	1.00	1.20
U	2.10	2.30
Z	7.90	9.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	500	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	15	A
P_{tot}	Total Dissipation@TC=25℃	150	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.833	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	50	℃/W

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D= 10mA	450			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10 V; I_D=1mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D= 7A			0.40	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=450V; V_{GS}= 0			300	uA
tr	Rise time	V_{GS}=10V;I_D=7A; R_L=30Ω		70	140	ns
ton	Turn-on time			100	200	ns
tf	Fall time			75	150	ns
toff	Turn-off time			350	700	ns
V_{SD}	Diode Forward Voltage	I_F= 15A; V_{GS}=0			2.0	V