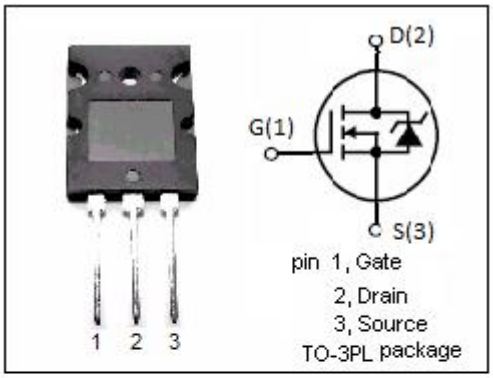
isc N-Channel MOSFET Transistor 2SK678

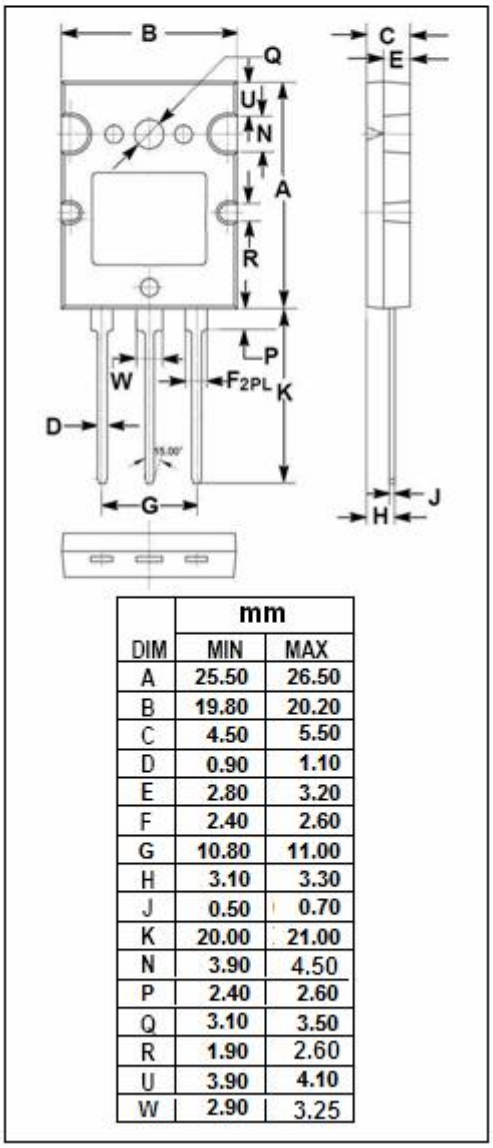
DESCRIPTION

- Drain Current –I_D=13A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=500V(Min)
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- High voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.



DIM	mm MIN	MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

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℃	13	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	30.00	℃/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	500			V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D= 1mA	2.0		4.0	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 10V; I_D=7A		0.32	0.40	Ω
V_{SD}	Diode Forward Voltage	I_F= 13A; V_{GS}= 0			1.8	V
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V; V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=500V; V_{GS}= 0			300	uA