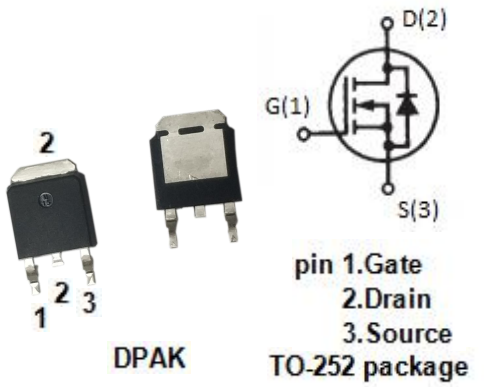
isc N-Channel MOSFET Transistor 2SK1861

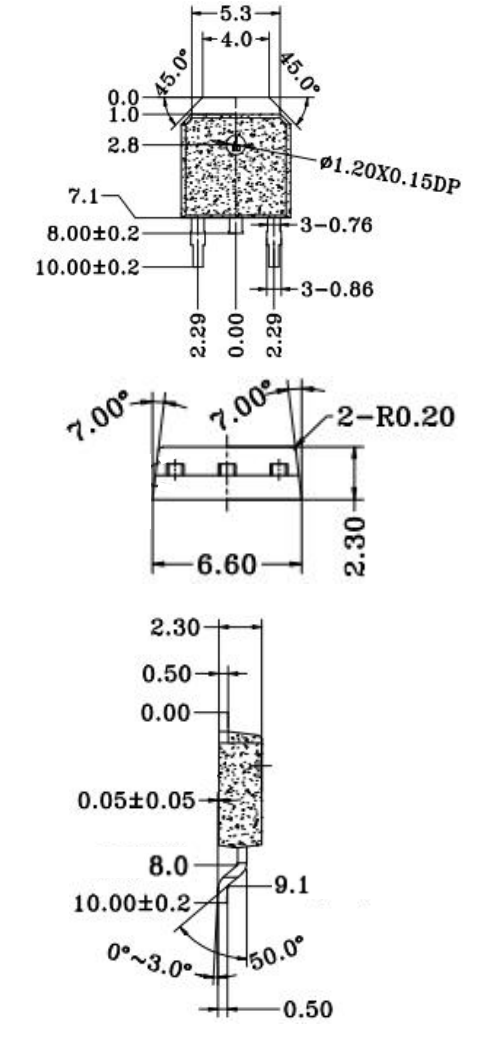
FEATURES

- Drain Current –I_D= 4A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=150V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 0.5Ω (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



DESCRIPTION

- motor drive, DC-DC converter, power switch and solenoid drive.



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	150	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	4	A
I_{DM}	Drain Current-Single Pluse	12	A
P_D	Total Dissipation @T_C=25℃	10	W
T_J	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	12.5	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	150	--	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D= 1mA	1	2	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 2A	--	0.5	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0	--	±10	uA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=150V; V_{GS}= 0	--	250	uA
V_{SD}	Forward On-Voltage	I_S= 4A; V_{GS}= 0	--	1.5	V

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