

isc P-Channel MOSFET Transistor

ATP302

FEATURES

- Drain Current : $I_D = -70A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DS} = -60V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 19.5m\Omega (\text{Max}) @ V_{GS} = -10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

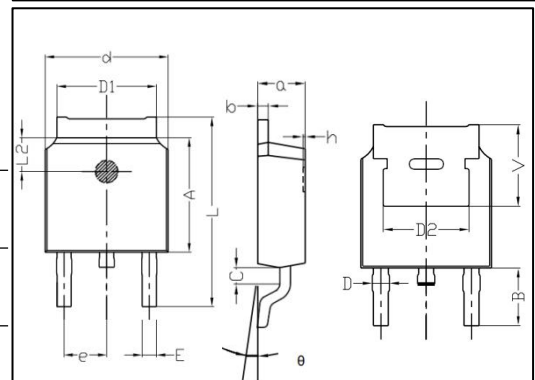
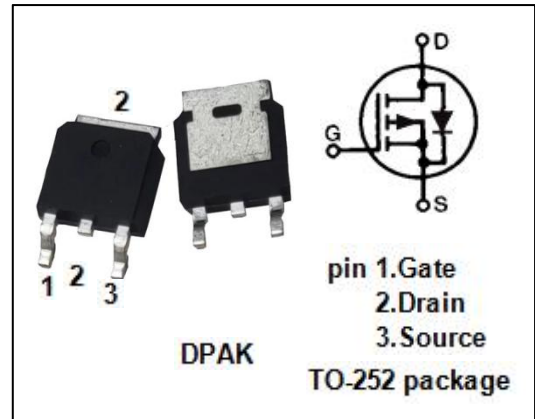
- motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	-60	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	-70	A
I_{DM}	Drain Current-Single Pluse	-280	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	70	W
T_J	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.79	$^\circ C/W$



DIM	mm	
	MIN	MAX
a	2.15	2.50
b	0.41	0.61
c	0.70	0.90
D	0.60	1.14
d	6.35	6.80
D1	5.10	5.53
D2	4.83REF	
A	5.40	6.40
e	2.09	2.49
L	9.25	10.41
B	2.40	3.10
L2	1.50	1.80
theta	0.00	8.00
h	0.00	0.15
V	5.30REF	
E	0.5	0.9

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ELECTRICAL CHARACTERISTICS

 $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=-0.25\text{mA}$	-60	--	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=-10\text{V}$; $I_D=-1.0\text{mA}$	-1.2	-2.6	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=-10\text{V}$; $I_D=-20\text{A}$ $V_{GS}=-4.5\text{V}$; $I_D=-20\text{A}$	--	19.5 21.5	$\text{m}\Omega$
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 16\text{V}$; $V_{DS}=0$	--	± 10	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=-60\text{V}$; $V_{GS}=0$	--	-10	μA
V_{SD}	Forward On-Voltage	$I_S=-70\text{A}$; $V_{GS}=0$	--	-1.5	V

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