

isc P-Channel MOSFET Transistor

ISCD18102

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)}$:170m Ω (type)
- Enhancement mode
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

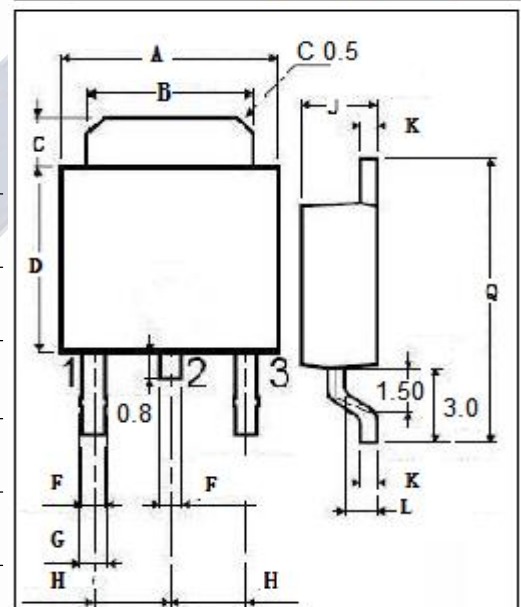
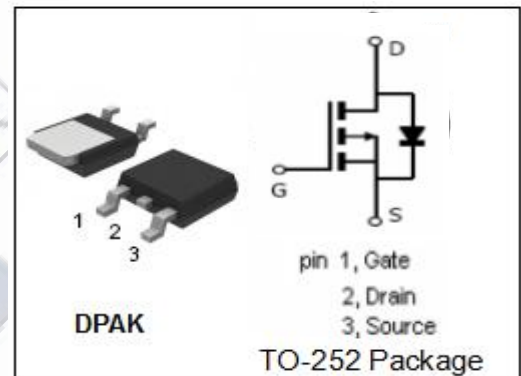
- Power switch
- DC/DC converters

• ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	-100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	-3	A
I_{DM}	Drain Current-Single Plused	-12	A
P_D	Total Dissipation @ $T_c=25^{\circ}\text{C}$	40	W
T_j	Max. Operating Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	3.13	$^{\circ}\text{C/W}$



DIM	mm	
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
E	0.65	
F	0.75	
G	2.10	2.50
H	2.10	2.40
I	0.40	0.60
J	0.90	1.10
K	9.90	10.1

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$; $I_D = -250\ \mu A$	-100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D = -250\ \mu A$	-1		-3	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS} = -10V$; $I_D = -3A$		170	200	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS} = \pm 20V$; $V_{DS} = 0V$			± 10	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS} = -100V$; $V_{GS} = 0V$			-1	μA
V_{SD}	Diode forward voltage	$I_S = -3A$, $V_{GS} = 0V$			-1.2	V