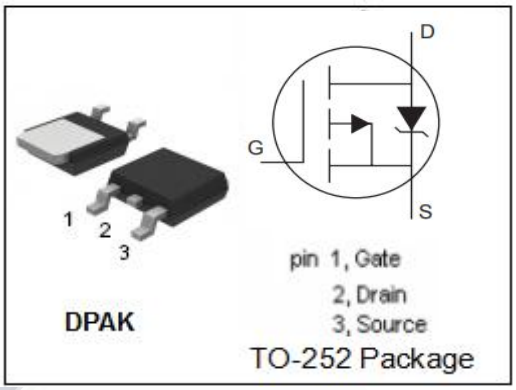
isc P-Channel MOSFET Transistor ISCD1836



• FEATURES

- Static drain-source on-resistance:
  $R_{DS(on)} \leqslant 4.2m\Omega$ (@V_{GS}= -10V; I_D= -70A)
- Enhancement mode
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

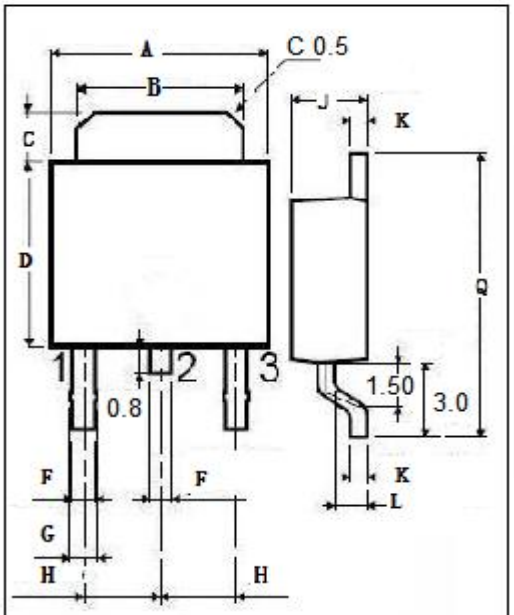
- 175° C operating junction temperature

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	-30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	-70	A
I_{DM}	Drain Current-Single Pulsed	-280	A
P_D	Total Dissipation @T_C=25℃	150	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	1.0	℃/W
Rth(j-a)	Channel-to-ambient thermal resistance	50	℃/W



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= -0.25mA	-30			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D= -0.25mA	-2		-1	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= -10V; I_D= -70A			4.2	mΩ
		V_{GS}= -4.5V; I_D= -70A			6.8	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= -20V; V_{DS}= 0V			-100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= -30V; V_{GS}= 0V; Tj=25℃			-1	μA
		V_{DS}= -30V; V_{GS}= 0V; Tj=175℃			-300	μA
V_{SD}	Diode forward voltage	IF= -70A, V_{GS} = 0V			-1.1	V

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