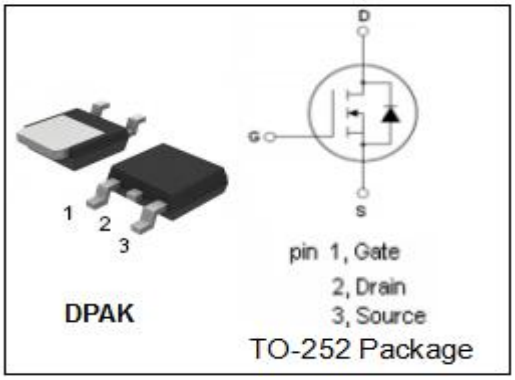
isc N-Channel MOSFET Transistor IPD65R600E6,IIPD65R600E6

- **FEATURES**
- Static drain-source on-resistance:
  $R_{DS(on)} \leqslant 0.6\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

- **DESCRIPTION**
- Fast switching
- Very high commutation ruggedness

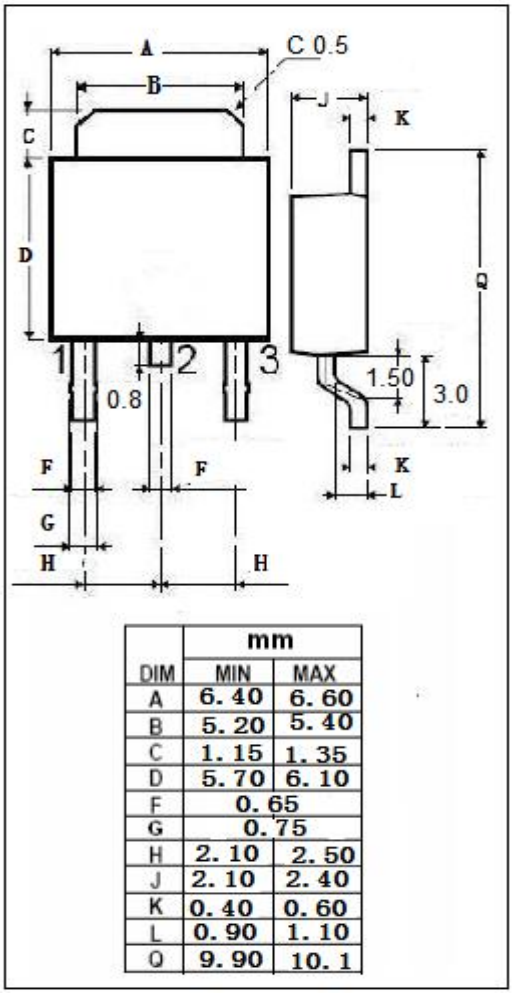


- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	7.3	A
I_{DM}	Drain Current-Single Pulsed	18	A
P_D	Total Dissipation @T_C=25℃	63	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	2	℃/W
Rth(j-a)	Channel-to-ambient thermal resistance	62	℃/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=1mA	650			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=0.21mA	2.5		3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=2.1A			0.6	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}=20V; V_{DS}=0V			0.1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=650V; V_{GS}= 0V			1	μA
V_{SD}	Diode forward voltage	I_F=3.2A, V_{GS} = 0V		0.9		V