

Isc N-Channel MOSFET Transistor

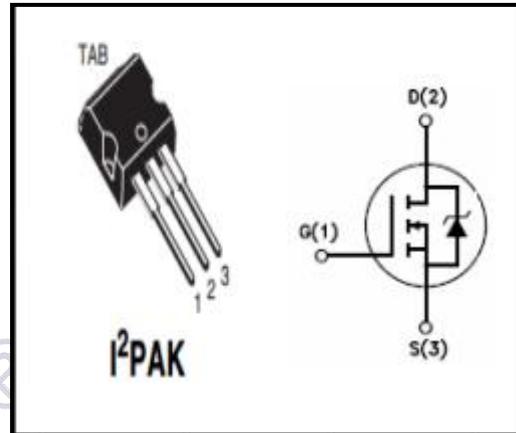
IPI60R190C6

• FEATURES

- With To-262(I²PAK) package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications



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

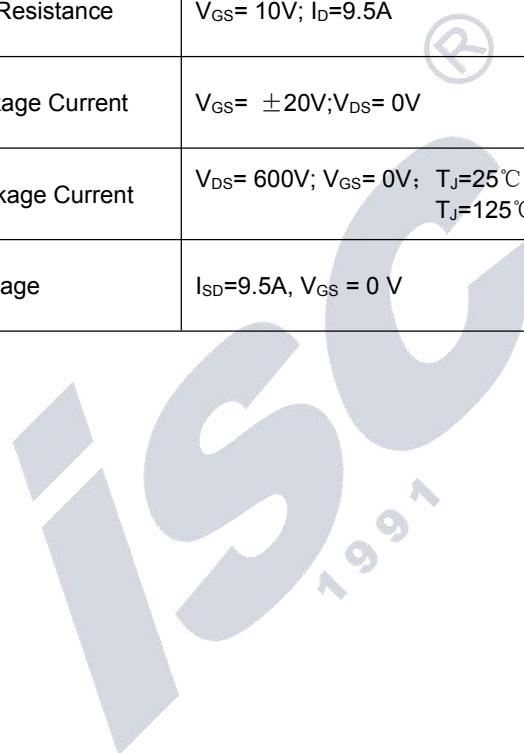
SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous@ $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	20.2 12.8	A
I_{DM}	Drain Current-Single Pulsed	59	A
P_D	Total Dissipation	151	W
T_j	Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

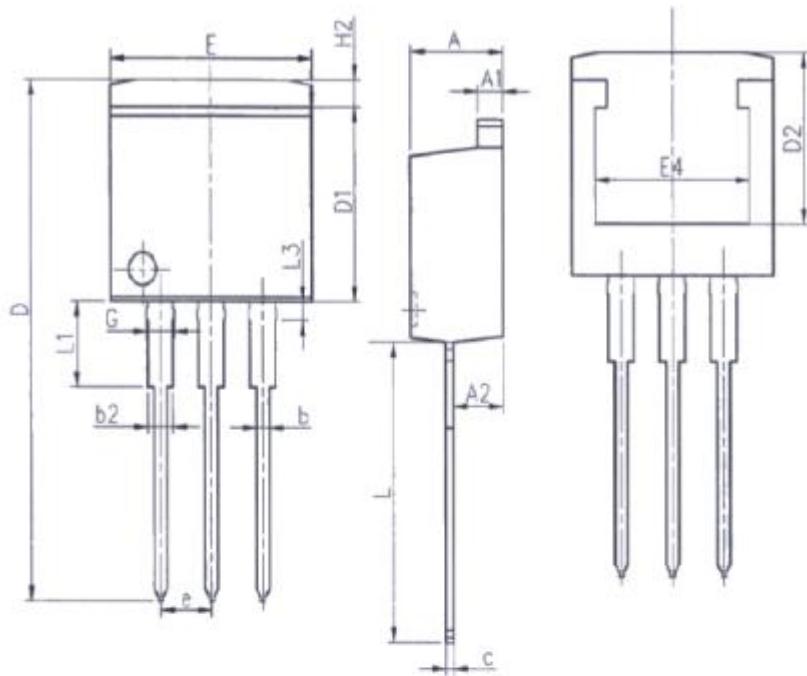
• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.83	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C}/\text{W}$

Isc N-Channel MOSFET Transistor**IPI60R190C6****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{\text{GS}}=0\text{V}; I_{\text{D}}= 0.25\text{mA}$	600			V
$V_{\text{GS}(\text{th})}$	Gate Threshold Voltage	$V_{\text{DS}}=\pm 20\text{V}; I_{\text{D}}=0.1\text{mA}$	2.5		3.5	V
$R_{\text{DS}(\text{on})}$	Drain-Source On-Resistance	$V_{\text{GS}}= 10\text{V}; I_{\text{D}}=9.5\text{A}$		170	190	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{\text{GS}}= \pm 20\text{V}; V_{\text{DS}}= 0\text{V}$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{\text{DS}}= 600\text{V}; V_{\text{GS}}= 0\text{V}; T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$			1 100	μA
V_{SDF}	Diode forward voltage	$I_{\text{SD}}=9.5\text{A}, V_{\text{GS}} = 0 \text{ V}$		0.9		V



Isc N-Channel MOSFET Transistor**IPI60R190C6****DIMENSIONAL DRAWING**

Unit: mm		
Symbol	Min.	Max.
A	4.37	4.77
A1	1.22	1.42
A2	2.47	2.87
b	0.70	0.97
b2	1.17	1.42
c	0.28	0.53
D	23.20	24.02
D1	8.38	8.90
D2	6.00	-

Unit: mm		
Symbol	Min.	Max.
E	9.90	10.39
E4	7.30	-
e	2.54BSC	
G	1.25	1.50
H2	-	1.31
L	13.34	14.10
L1	3.30	4.06
L3	0.95	1.15

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