

Isc N-Channel MOSFET Transistor

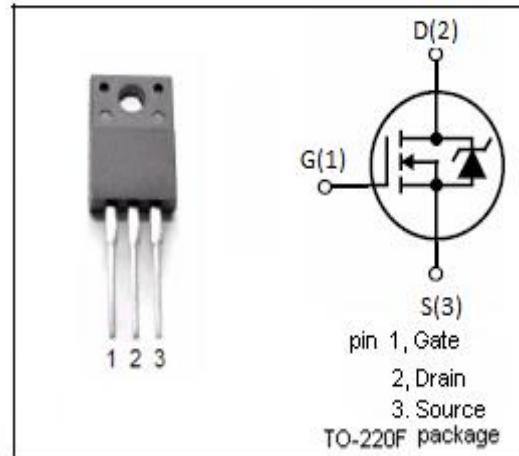
IPA65R065C7

• FEATURES

- With TO-220F package
- Low input capacitance and gate charge
- Reduced switching and conduction losses
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications

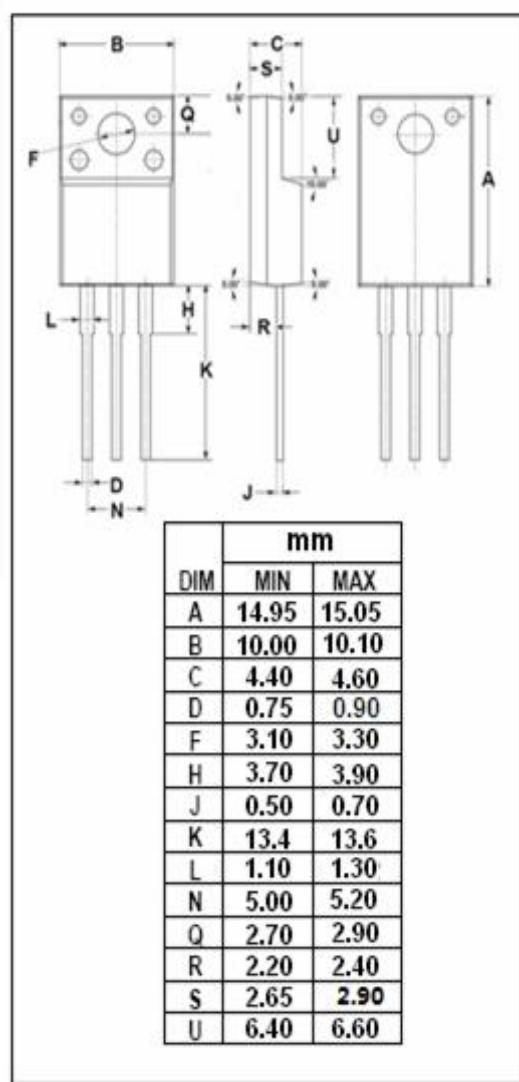


• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous @ $T_c=25^\circ\text{C}$ $(V_{GS} \text{ at } 10\text{V})$	15 9	A
I_{DM}	Drain Current-Single Pulsed	145	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	34	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
$R_{th(ch-c)}$	Channel-to-case thermal resistance	3.7	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	80	$^\circ\text{C/W}$



Isc N-Channel MOSFET Transistor**IPA65R065C7****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_D=1\text{mA}$	650			V
$\text{V}_{\text{GS(th)}}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}= \text{V}_{\text{GS}}; \text{I}_D=0.85\text{mA}$	2.5		3.5	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}= 10\text{V}; \text{I}_D=17.1\text{A}$		58	65	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$\text{V}_{\text{GS}}=\pm 20\text{V}; \text{V}_{\text{DS}}= 0\text{V}$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$\text{V}_{\text{DS}}= 650\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=25^\circ\text{C}$ $\text{V}_{\text{DS}}= 650\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=150^\circ\text{C}$			1 100	μA
V_{SDF}	Diode forward voltage	$\text{I}_{\text{SD}}=17.1\text{A}, \text{V}_{\text{GS}} = 0\text{V}$		0.9		V