Isc N-Channel MOSFET Transistor IPA65R045C7
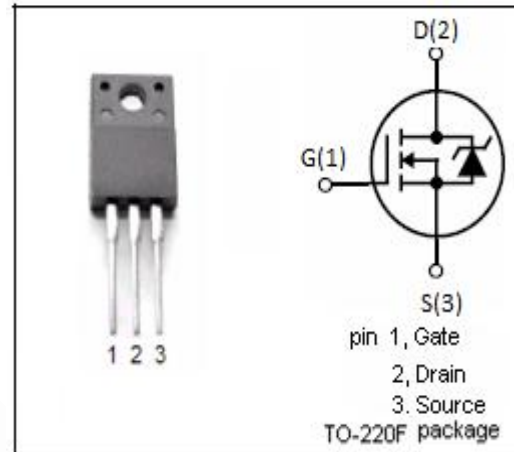
• **FEATURES**
- With To-220F package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
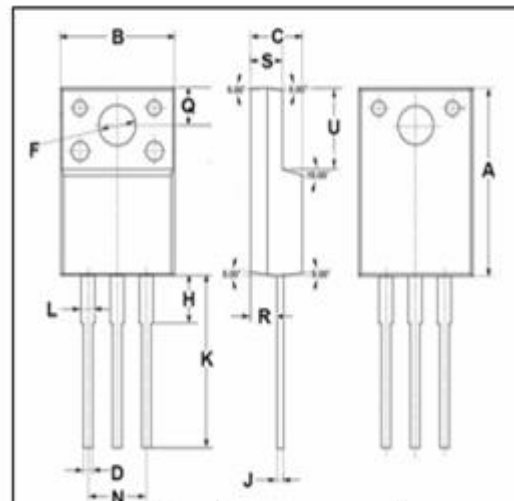- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• **APPLICATIONS**
- Switching applications

pin 1, Gate
2, Drain
3. Source
TO-220F package

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GSS}	Gate-Source Voltage	$\pm$20	V
I_D	Drain Current-Continuous@T_C=25℃ / T_C=100℃	18 / 11	A
I_{DM}	Drain Current-Single Pulsed	212	A
P_D	Total Dissipation @T_C=25℃	35	W
T_{ch}	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

• **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	3.6	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	80	℃/W

	mm	
DIM	MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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$_{DS}$= ±20V; I$_D$=2.4mA	3.0		4.0	V
R$_{DS(on)}$	Drain-Source On-Resistance	V$_{GS}$= 10V; I$_D$=24.9A		40	45	m Ω
I$_{GSS}$	Gate-Source Leakage Current	V$_{GS}$= ±20V;V$_{DS}$= 0V			±0.1	μ A
I$_{DSS}$	Drain-Source Leakage Current	V$_{DS}$= 650V; V$_{GS}$= 0V			2	μ A
V$_{SDF}$	Diode forward voltage	I$_{SD}$=24.9A, V$_{GS}$ = 0 V		0.9		V