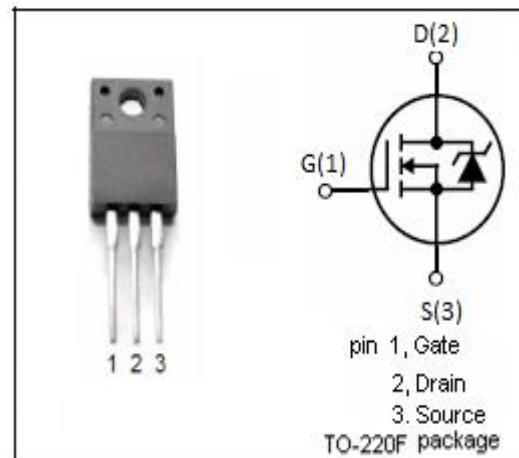


isc N-Channel MOSFET Transistor

IPA65R380E6

• FEATURES

- With TO-220F packaging
- High speed switching
- Very high commutation ruggedness
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz



• APPLICATIONS

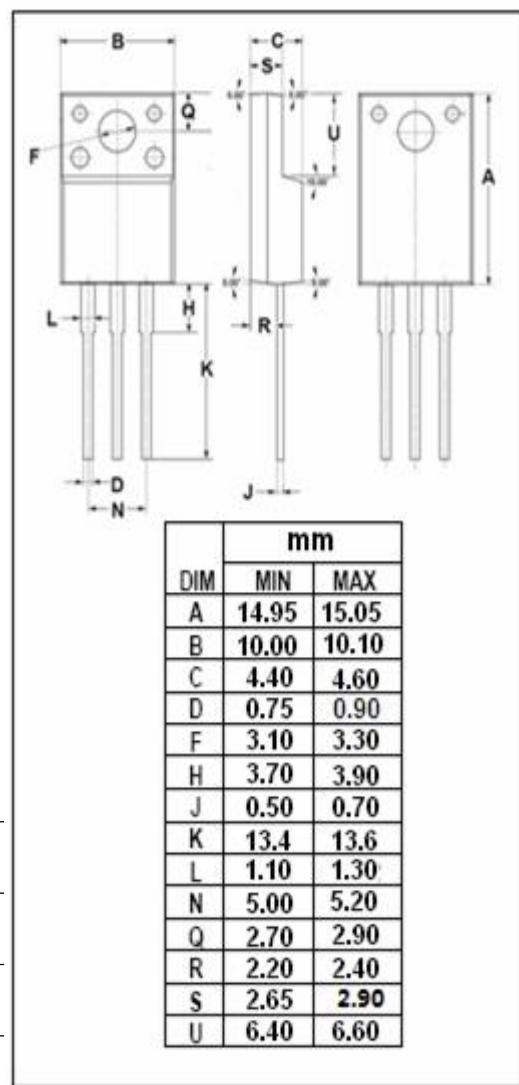
- Switching applications

• 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	± 20	V
I_D	Drain Current-Continuous@ $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	10.6 6.7	A
I_{DM}	Drain Current-Single Pulsed	29	A
P_D	Total Dissipation	31	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	4.0	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	80	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**IPA65R380E6****ELECTRICAL CHARACTERISTICS****T_c=25°C 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 =0.32mA	2.5		3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =3.2A		340	380	mΩ
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			1	μ A
V _{SDF}	Diode forward voltage	I _{SD} =4.9A, V _{GS} = 0 V		0.9		V

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