

isc N-Channel MOSFET Transistor**IPP65R420CFD, IIPP65R420CFD****• FEATURES**

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 0.42\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

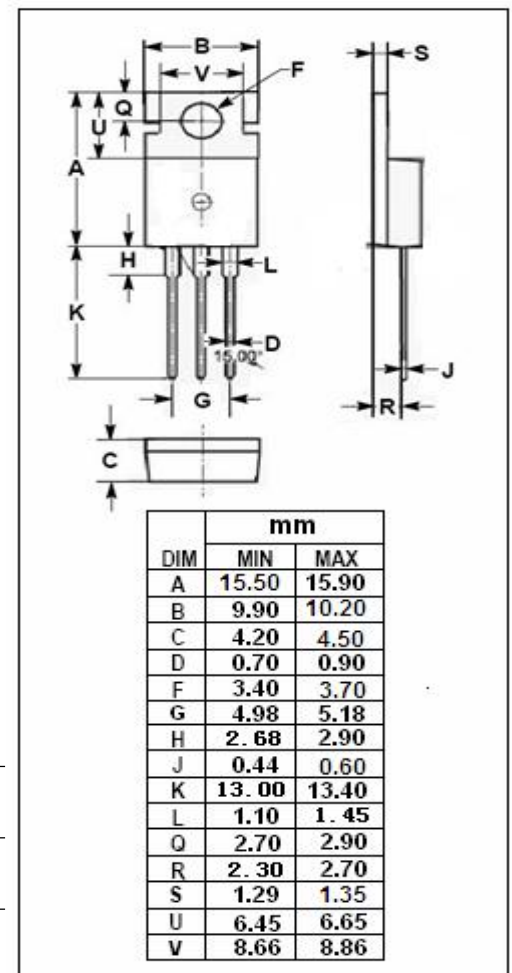
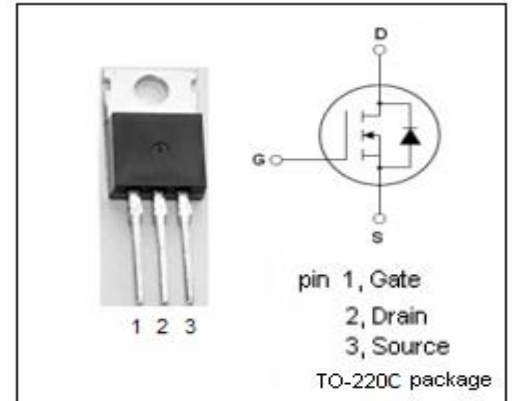
- Provide all benefits of a fast switching SJ MOSFET while offering an extremely fast and robust body diode

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	8.7	A
I_{DM}	Drain Current-Single Pulsed	27	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	83.3	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	1.5	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C/W}$



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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 =0.3mA	3.5		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =3.4A			0.42	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 =5.2A; V _{GS} = 0V		0.9		V

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