

**Isc N-Channel MOSFET Transistor**
**IPB50R250CP**
**• FEATURES**

- With TO-263( D<sup>2</sup> PAK ) packaging
- High speed switching
- Low gate input resistance
- Standard level gate drive
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

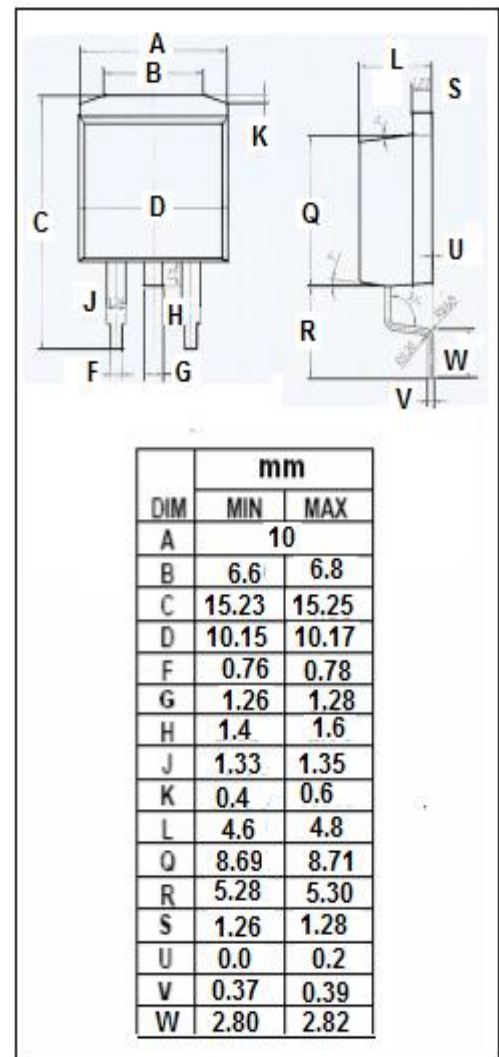
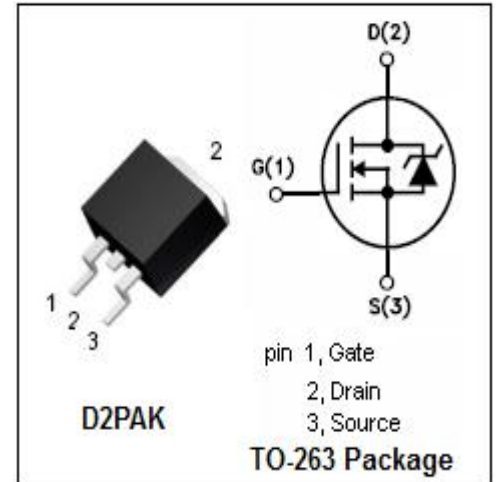
- Power supply
- Switching applications

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	500	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous	13	A
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25°C	114	W
T <sub>J</sub>	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(j-c)</sub>	Channel-to-case thermal resistance	1.1	°C/W



**Isc N-Channel MOSFET Transistor****IPB50R250CP****ELECTRICAL CHARACTERISTICS**T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 250uA	500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 0.52mA	2.5	3	3.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 7.8A		220	250	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V			± 100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0V			1	μA
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = 7.8A, V <sub>GS</sub> = 0V		0.9	1.2	V

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