

isc N-Channel MOSFET Transistor

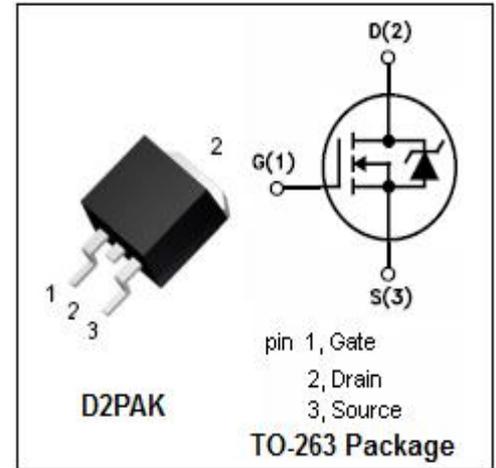
IPB60R280P6

• FEATURES

- With TO-263(D2PAK) packaging
- Ultra-fast body diode
- 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

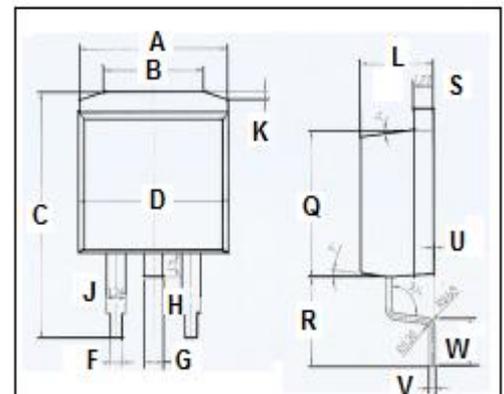
• APPLICATIONS

- Switching applications



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous@ $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	13.8 8.8	A
I_{DM}	Drain Current-Single Pulsed	39	A
P_D	Total Dissipation	104	W
T_j	Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.2	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C/W}$

isc N-Channel MOSFET Transistor**IPB60R280P6****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	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =0.43mA	3.5		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =5.2A		252	280	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 600V; V _{GS} = 0V			1	μA
V _{SDF}	Diode forward voltage	I _{SD} =6.5A, V _{GS} = 0 V			0.9	V

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