

isc N-Channel MOSFET Transistor

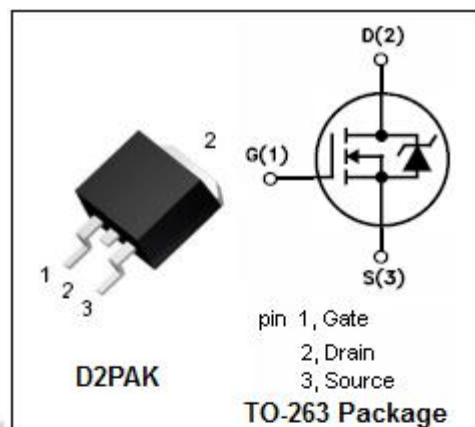
5N80

• DESCRIPTION

- Drain Current $I_D = 5.5A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 800V (Min)$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

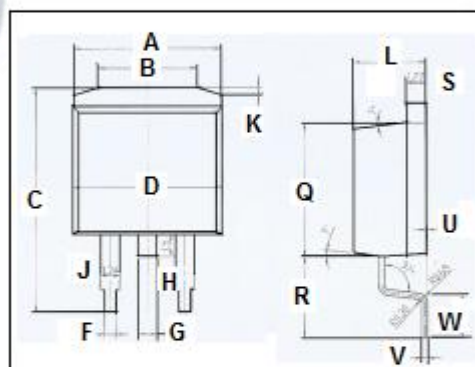
• Designed for high current, high speed switching, switch mode power supplies (SMPS), consumer and industrial lighting, DC-AC inverters for welding equipment and uninterruptible power supply (UPS)


ABSOLUTE MAXIMUM RATINGS($T_C = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	800	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	5.5	A
$I_{D(puls)}$	Pulse Drain Current	20	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	125	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



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
O	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

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 250μA	800			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2.0		4.0	V
V _{SD}	Diode Forward On-Voltage	I _S =5.5A; V _{GS} = 0			1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =2.5A			2.6	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 800V; V _{GS} = 0			250	μA