

isc N-Channel MOSFET Transistor

10N50

DESCRIPTION

- Drain Current $-I_D=10A@ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}= 500V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

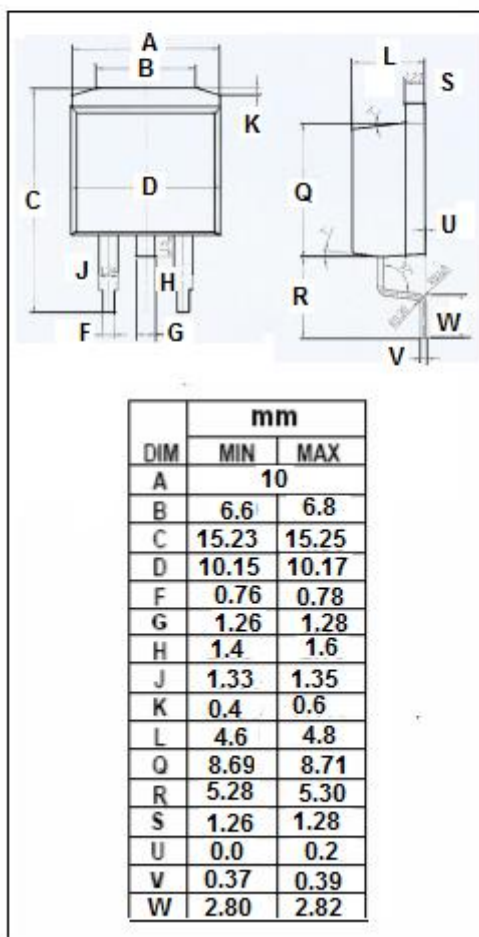
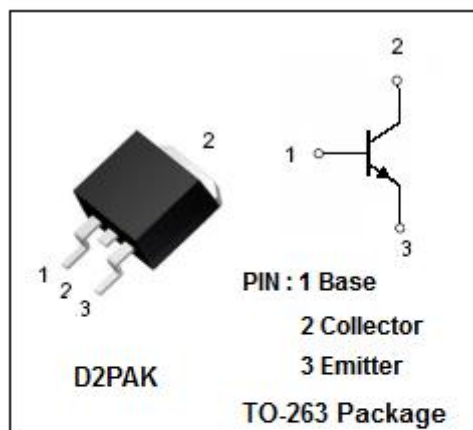
- Designed for applications such as switching regulators, switching converters, motor drivers, relay drivers and drivers for power bipolar switching transistors requiring High speed and low gate drive power

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	500	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^\circ C$	10	A
P_{tot}	Total Dissipation@ $T_C=25^\circ C$	120	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	0.83	$^\circ C/W$



isc N-Channel Mosfet Transistor**10N50****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	450			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =0.25mA	2		4	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D = 10A			0.6	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =500V; V _{GS} = 0			1	uA
V _{SD}	Forward On-Voltage	I _S = 10A; V _{GS} =0			1.4	V
C _{ISS}	Input capacitance	V _{DS} =25V;			3000	pF
C _{OSS}	Output capacitance				600	pF
C _{RSS}	Reverse transfer capacitance				200	pF

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