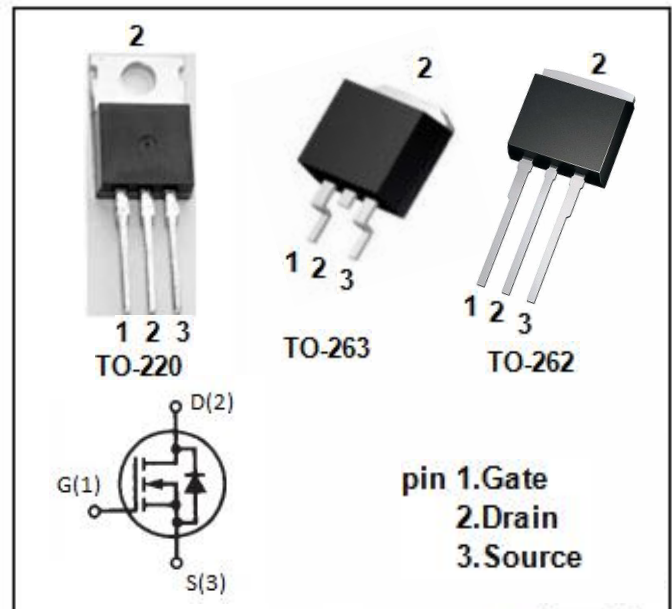


isc N-Channel MOSFET Transistor
2N0807
DESCRIPTION

- Drain Current - $I_D = 80A @ T_C = 25^\circ C$
- Drain Source Voltage- $V_{DSS} = 75V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)
- High current switching applications
- DC-DC converter and motor drive applications


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	75	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	80	A
I_{DM}	Drain Current-Single Pulse	320	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	250	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	0.5	$^\circ C/W$

isc N-Channel MOSFET Transistor

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 1mA	75	-	V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} , I _D = 250μA	2.1	4.0	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 66A	-	7.4	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0	-	±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 75V, V _{GS} = 0V, T _J = 25°C	-	1	μA
V _{SD}	Diode Forward Voltage	I _S =80A; V _{GS} =0V	-	1.3	V

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