

isc N-Channel MOSFET Transistor

IRF343

DESCRIPTION

- V_{GS} Rated at $\pm 20V$
- Silicon Gate for Fast Switching Speeds
- $I_{DSS}, V_{DS(on)}, SOA$ and $V_{GS(th)}$ specified at Elevated temperature
- Rugged

APPLICATIONS

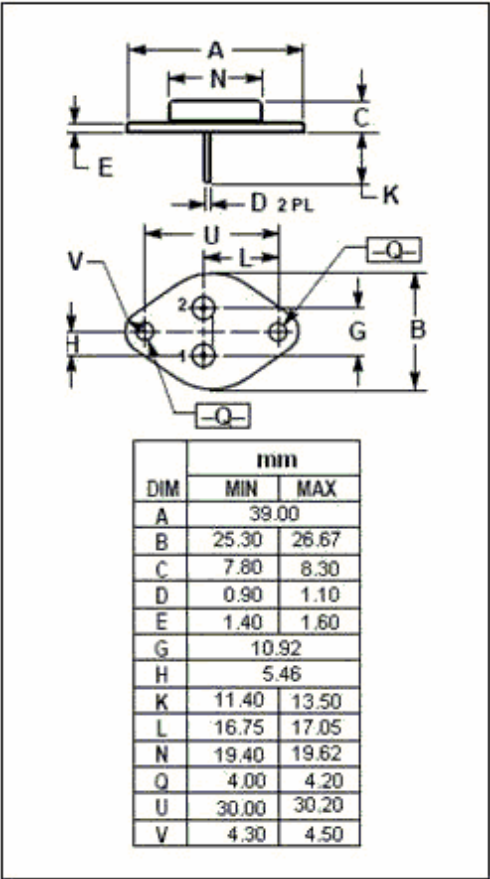
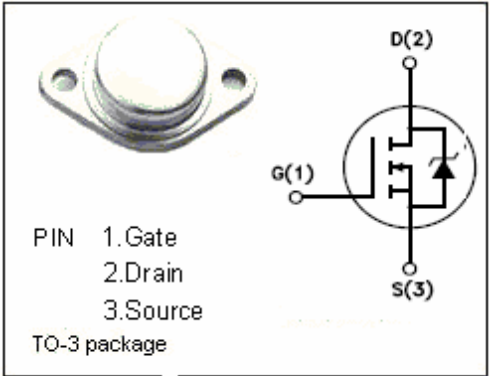
- Designed especially for high voltage, high speed applications, such as off-line switching power supplies , UPS, AC and DC motor controls, relay and solenoid drivers.

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	350	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^{\circ}C$	8.3	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}C$	125	W
T_j	Max. Operating Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}C/W$
$R_{th\ j-A}$	Thermal Resistance, Junction to Ambient	30	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**IRF343****• 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	350			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 = 5.2A			0.8	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 350V; V _{GS} = 0			250	uA
V _{SD}	Diode Forward Voltage	I _F = 10A; V _{GS} = 0			2.0	V
C _{iss}	Input Capacitance	V _{DS} =25V, V _{GS} =0V, F=1.0MHz		1250	1600	pF
C _{oss}	Output Capacitance			300	450	pF
C _{rss}	Reverse Transfer Capacitance			80	150	pF

• SWITCHING CHARACTERISTICS (T_C=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
T _{d(on)}	Turn-on Delay Time	V _{DD} =200V, I _D =10A R _G =9.1Ω		17	21	ns
T _r	Rise Time			27	41	ns
T _{d(off)}	Turn-off Delay Time			45	75	ns
T _f	Fall Time			20	36	ns