

isc N-Channel Mosfet Transistor

IRF840A

• FEATURES

- · Drain Source Voltage-
- : V_{DSS}= 500V(Min)
- Static Drain-Source On-Resistance
 - : $R_{DS(on)} = 0.85 \Omega (Max)$
- · Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRITION

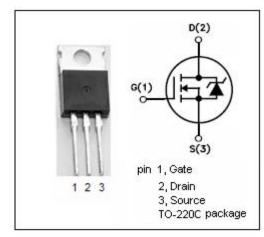
- · Switch mode power supply
- Uninterruptable power supply
- · High speed power switching

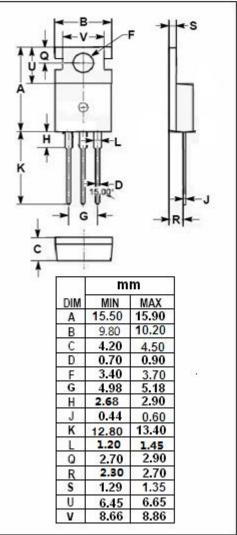
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT	
V _{DSS}	Drain-Source Voltage (V _{GS} =0)	500	V	
V _{GS}	Sate-Source Voltage ±30		V	
I _D	Drain Current-continuous@ TC=25℃ 8		Α	
I _{DM}	Drain Current-Single Plused	32	Α	
P _{tot}	Total Dissipation@TC=25℃	125	W	
Tj	Max. Operating Junction Temperature	150	$^{\circ}$	
T _{stg}	Storage Temperature Range	-55~150	$^{\circ}$	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance,Junction to Case	istance,Junction to Case 1.0	
R _{th j-a}	Thermal Resistance,Junction to Ambient	62	°C/W







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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =0.25mA	500			V
V _{GS} (th)	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =0.25mA	2.0		4.0	V
V_{SD}	Diode Forward On-voltage	I _S = 8A ;V _{GS} = 0			2.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 4.8A			0.85	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V;V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =500V; V _{GS} = 0			25	μA
Gfs	Forward Transconductance	V _{DS} = 50V; I _D =4.8A	3.7			S
t _{d(on)}	Turn-on Delay Time	I_D =8A; V_{DD} =250V; R_G =9.1 Ω		11		
t _r	Rise Time			23		
$t_{d(off)}$	Turn-off Delay Time			26		ns
t _f	Fall Time			19		

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