

isc N-Channel MOSFET Transistor

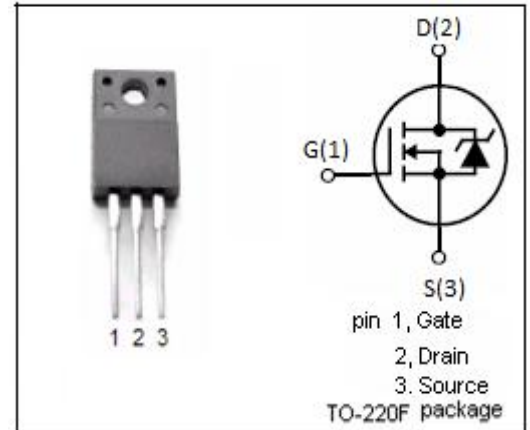
STP55NF06

DESCRIPTION

- With TO-220F packaging
- 100% avalanche tested
- Fast switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

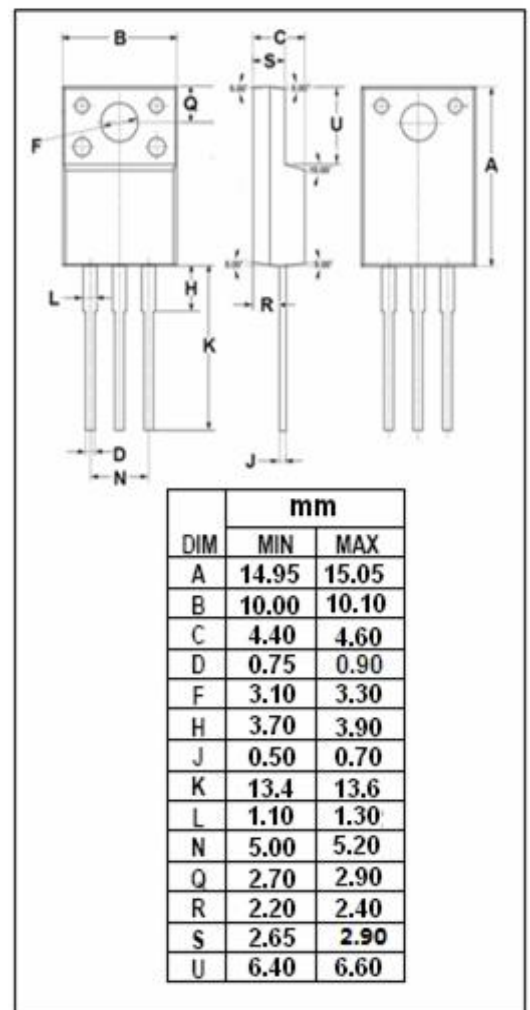
APPLICATIONS

- Motor control
- Audio amplifiers
- DC-DC&DC-AC converters



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^{\circ}\text{C}$	50	A
	Drain Current-continuous@ $TC=100^{\circ}\text{C}$	35	
P_{tot}	Total Dissipation@ $TC=25^{\circ}\text{C}$	30	W
T_j	Max. Operating Junction Temperature	175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5	$^{\circ}\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}\text{C}/\text{W}$

isc N-Channel Mosfet Transistor**STP55NF06****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 250uA	60		V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 250uA	2	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 27.5A		0.018	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 60V; V _{GS} = 0 V _{DS} = 60V; V _{GS} = 0, T _c =125°C		1 10	uA uA
V _{SD}	Diode Forward Voltage	I _{SD} = 55A; V _{GS} = 0		1.5	V

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