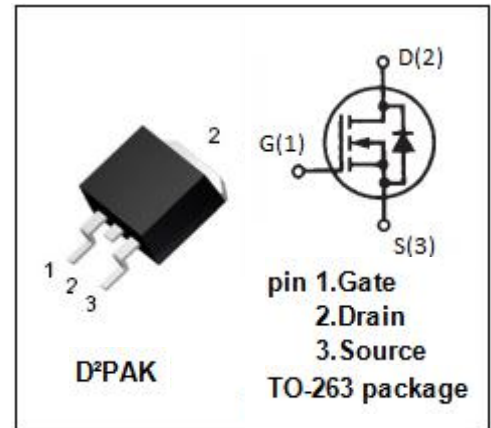


**isc N-Channel MOSFET Transistor**
**STB18N55M5**
**FEATURES**

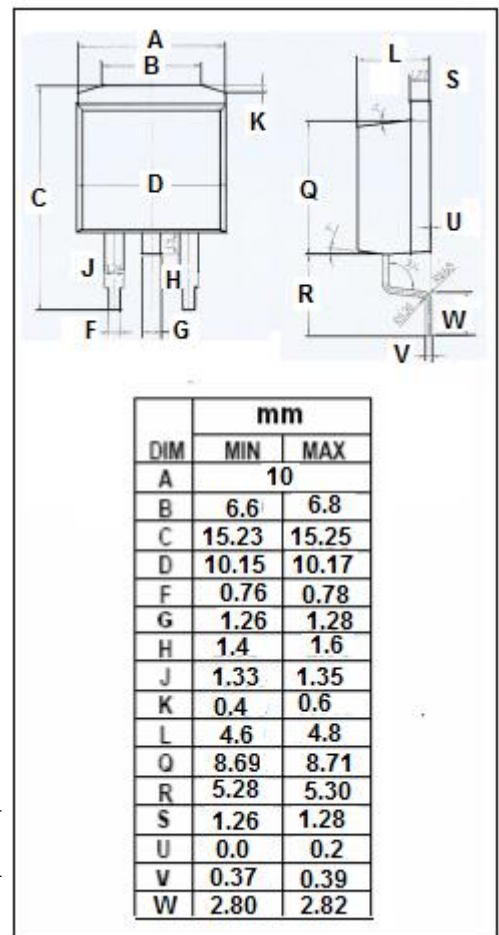
- Drain Current  $-I_D=13A@T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}=550V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)}=240m\Omega(\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

- Switching application

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	550	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 25$	V
$I_D$	Drain Current-Continuous	13	A
$I_{DM}$	Drain Current-Single Pulse	52	A
$P_D$	Total Dissipation @ $T_C=25^\circ C$	90	W
$T_J$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$


**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.39	$^\circ C/W$

## isc N-Channel MOSFET Transistor

## STB18N55M5

## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$ ; $I_D=1\text{mA}$	550		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$ ; $I_D=0.25\text{mA}$	3	5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$ ; $I_D=6.5\text{A}$		240	$\text{m}\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 25\text{V}$ ; $V_{DS}=0$		$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=\text{Max rating}$ ; $V_{GS}=\text{Max rating}$ ; $T_j=125^{\circ}\text{C}$		1 100	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=13\text{A}$ ; $V_{GS}=0$		1.5	V

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