

## isc N-Channel MOSFET Transistor

## AOT210L

## • FEATURES

- Low drain-source on-resistance:  
 $R_{DS(on)} \leq 2.9m\Omega$
- High frequency switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • DESCRIPTION

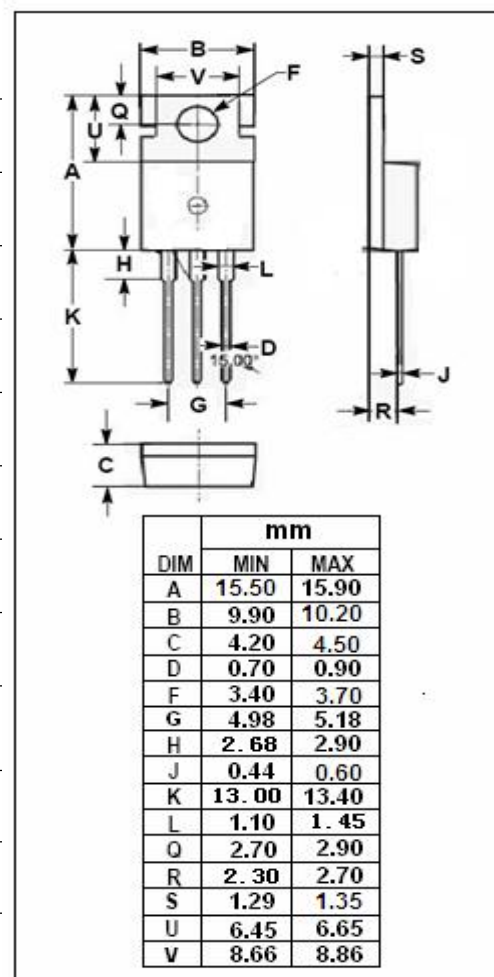
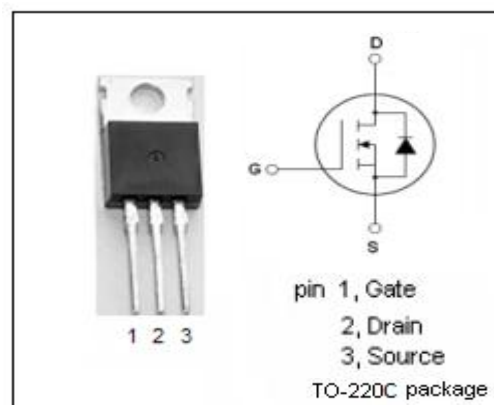
- For fast switching power supply

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	30	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	105	A
$I_{DM}$	Drain Current-Single Pulsed	400	A
$P_D$	Total Dissipation @ $T_c=25^\circ\text{C}$	176	W
$T_j$	Max. Operating Junction Temperature	175	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~175	$^\circ\text{C}$

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.85	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	65	$^\circ\text{C/W}$



**isc N-Channel MOSFET Transistor****AOT210L****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D = 250 \mu A$	30			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250 \mu A$	1		2.2	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=20A$			2.9	$m\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=20V; V_{DS}= 0V$			100	nA
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=30V; V_{GS}= 0V$			1	$\mu A$
		$V_{DS}=30V; V_{GS}= 0V; T_J=55^{\circ}\text{C}$			5	$\mu A$
$V_{SD}$	Diode forward voltage	$I_S=1A; V_{GS}= 0V$			1	V

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