

**• FEATURES**

- Low drain-source on-resistance:  $R_{DS(ON)} = 0.08\Omega$  (typ.)
- Enhancement mode:  $V_{th} = 3$  to  $4.5V$  ( $V_{DS} = 10V$ ,  $I_D = 2.1mA$ )
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• DESCRIPTION**

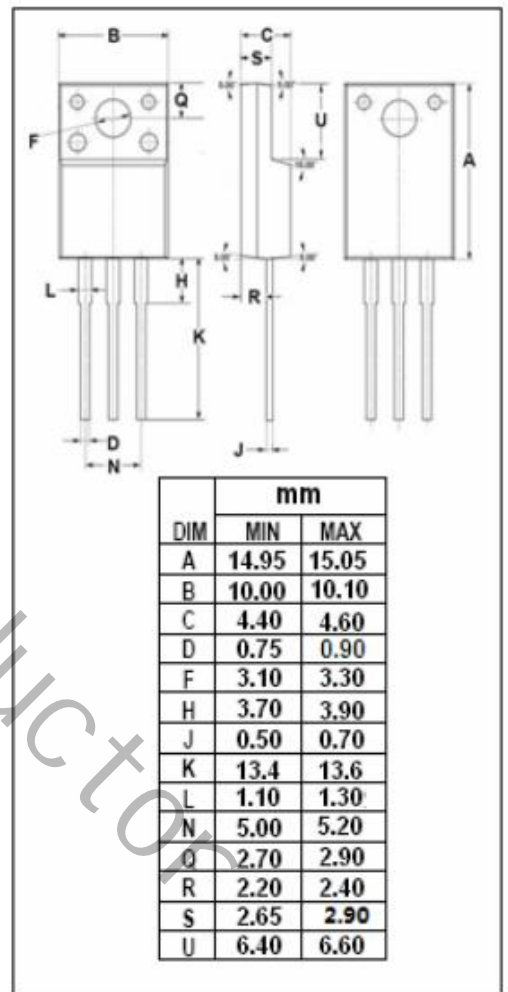
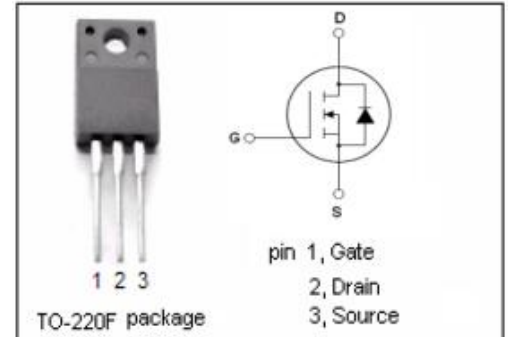
- Switching Voltage Regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	650	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	35	A
$I_{DM}$	Drain Current-Single Pulsed	140	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	50	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	2.5	$^\circ C/W$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62.5	$^\circ C/W$



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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=10mA$	650			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10V; I_D=2.1mA$	3		4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=17.5A$		80	95	$m\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			$\pm 1$	$\mu A$
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=650V; V_{GS}=0V$			100	$\mu A$
$V_{SDF}$	Diode forward voltage	$I_{DR}=35A, V_{GS}=0V$			1.7	V