

**Silicon NPN Darlington Power Transistor**

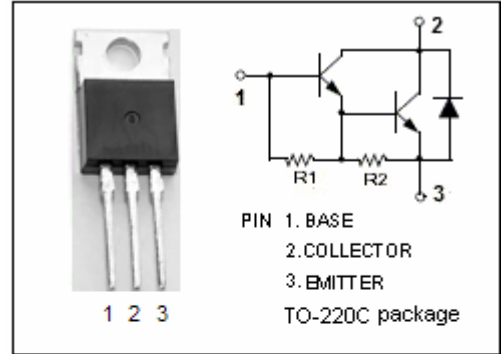
**BU912**

**DESCRIPTION**

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 450V(\text{Min})$
- High Switching Speed

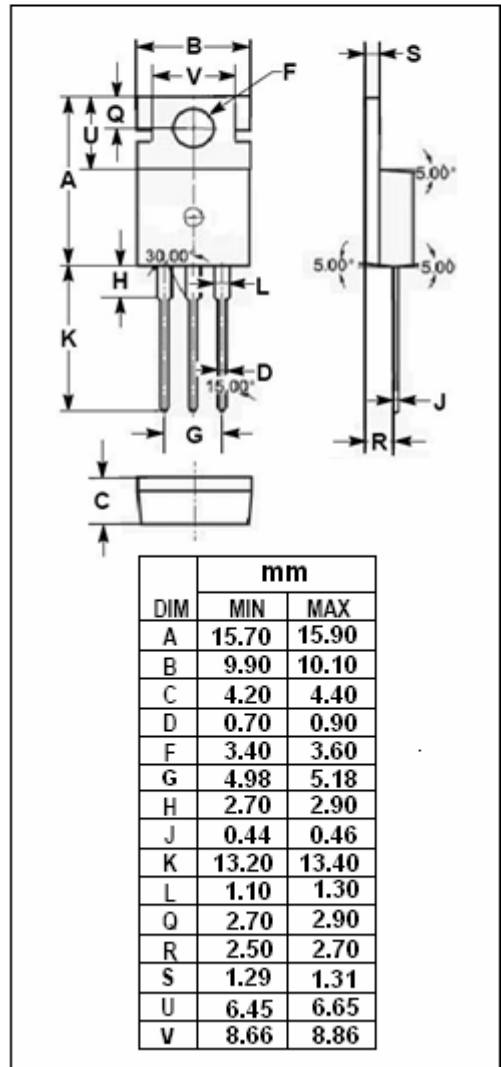
**APPLICATIONS**

- Designed for applications such as electronic ignition, DC and AC motor controls, solenoid drivers, etc.



**ABSOLUTE MAXIMUM RATINGS( $T_a=25$  )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	500	V
$V_{CEO}$	Collector-Emitter Voltage	450	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	6	A
$I_{CM}$	Collector Current-Peak	10	A
$I_B$	Base Current	1	A
$P_C$	Collector Power Dissipation @ $T_C=25$	60	W
$T_J$	Junction Temperature	150	
$T_{stg}$	Storage Temperature Range	-65~150	



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.08	/W

**Silicon NPN Darlington Power Transistor****BU912****ELECTRICAL CHARACTERISTICS** $T_C=25$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 100mA ; I_B= 0$	450			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 2.5A; I_B= 50mA$			1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 4A; I_B= 0.2A$			1.8	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C= 2.5A; I_B= 50mA$			2.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C= 4A; I_B= 0.2A$			2.5	V
$I_{CES}$	Collector Cutoff Current	$V_{CE}= 500V; V_{BE}= 0$ $V_{CE}= 500V; V_{BE}= 0, T_C= 125$			1 5	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 450V; I_B= 0$			1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5V; I_C= 0$			5	mA
$V_{ECF}$	C-E Diode Forward Voltage	$I_F= 4A$			2.5	V