

**isc Silicon NPN Darlington Power Transistor**
**2SD1245**
**DESCRIPTION**

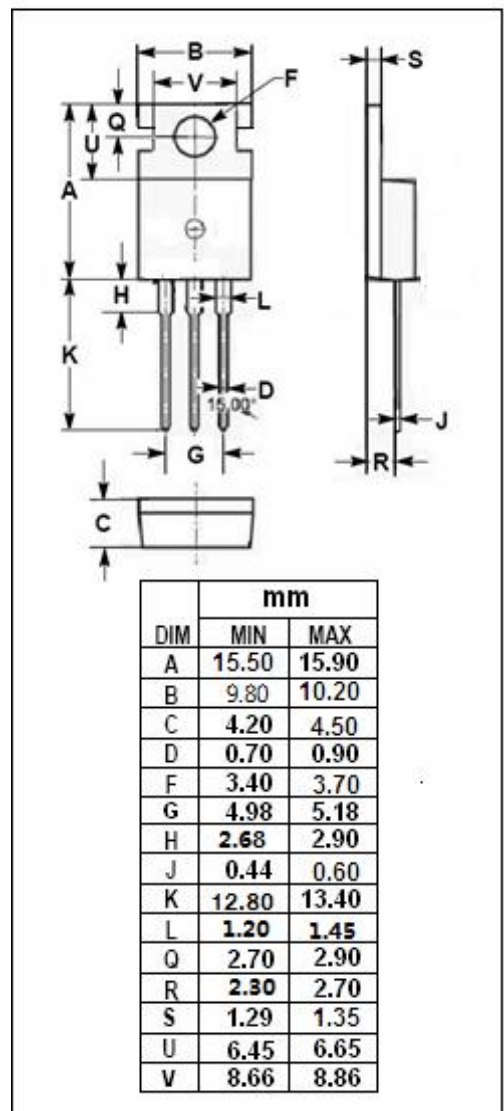
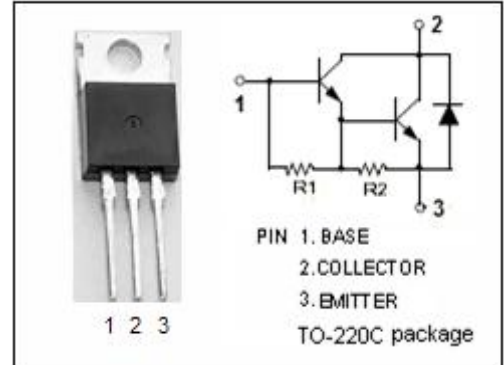
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 400V(\text{Min})$
- High DC Current Gain  
:  $h_{FE} = 500(\text{Min}) @ I_C = 2A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for general purpose amplifier and Motor control

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	500	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	6	A
$I_{CM}$	Collector Current-Peak	10	A
$P_C$	Collector Power Dissipation $T_C = 25^\circ\text{C}$	40	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon NPN Darlington Power Transistor

2SD1245

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 25\text{mA}; I_B= 0$	400			V
$V_{(BR)EBO}$	Emitter -Base Breakdown Voltage	$I_E= 5\text{mA}; I_C= 0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 3\text{A}; I_B= 60\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 3\text{A}; I_B= 60\text{mA}$			2.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 400\text{V}; I_E= 0$			100	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 400\text{V}; I_B= 0$			1	mA
$h_{FE}$	DC Current Gain	$I_C= 2\text{A}; V_{CE}= 2\text{V}$	500			

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