

**isc Silicon NPN Darlington Power Transistor**

**2SD803**

**DESCRIPTION**

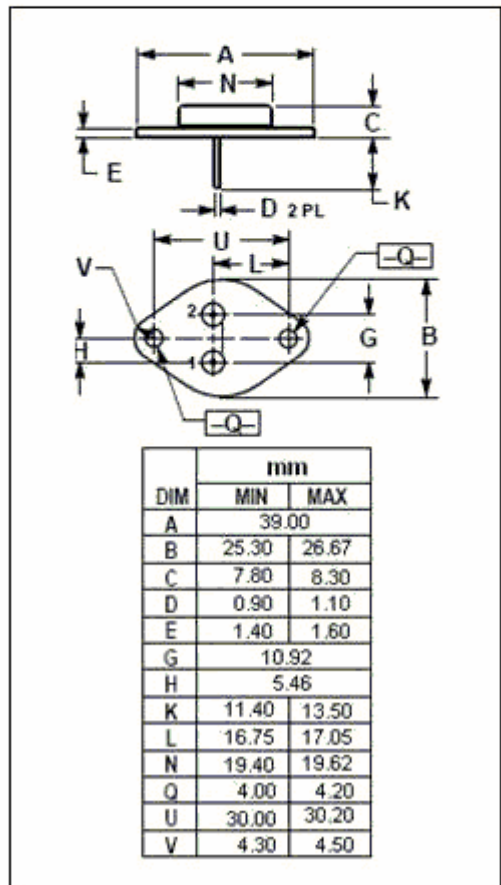
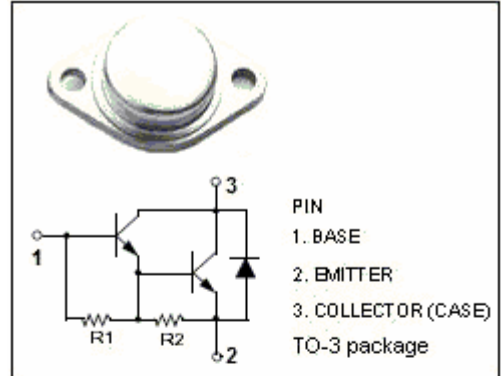
- Built-in Base-Emitter Shunt Resistors
- High DC current gain-  
 $h_{FE} = 2000$  (Min) @  $I_C = 1$  Adc
- Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 100V$ (Min)
- Wide Area of Safe Operation

**APPLICATIONS**

- Designed for high power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	120	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	8	A
$I_B$	Base Current -Continuous	1	A
$P_C$	Collector Power Dissipation@ $T_C=25^\circ C$	100	W
$T_j$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-65~150	$^\circ C$



**isc Silicon NPN Darlington Power Transistor****2SD803****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 50\text{mA}$ ; $I_B= 0$	100		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 3\text{A}$ ; $I_B= 30\text{mA}$		1.5	V
$I_{CBO}$	Collector Cutoff current	$V_{CB}= 120\text{V}$ ; $I_E=0$		100	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off current	$V_{EB}= 6\text{V}$ ; $I_C= 0$		10	mA
$h_{FE-1}$	DC Current Gain	$I_C= 1\text{A}$ ; $V_{CE}= 4\text{V}$	2000		
$h_{FE-2}$	DC Current Gain	$I_C= 40\text{A}$ ; $V_{CE}= 4\text{V}$	7		