

**isc Silicon NPN Darlington Power Transistor**

**2SD2256**

**DESCRIPTION**

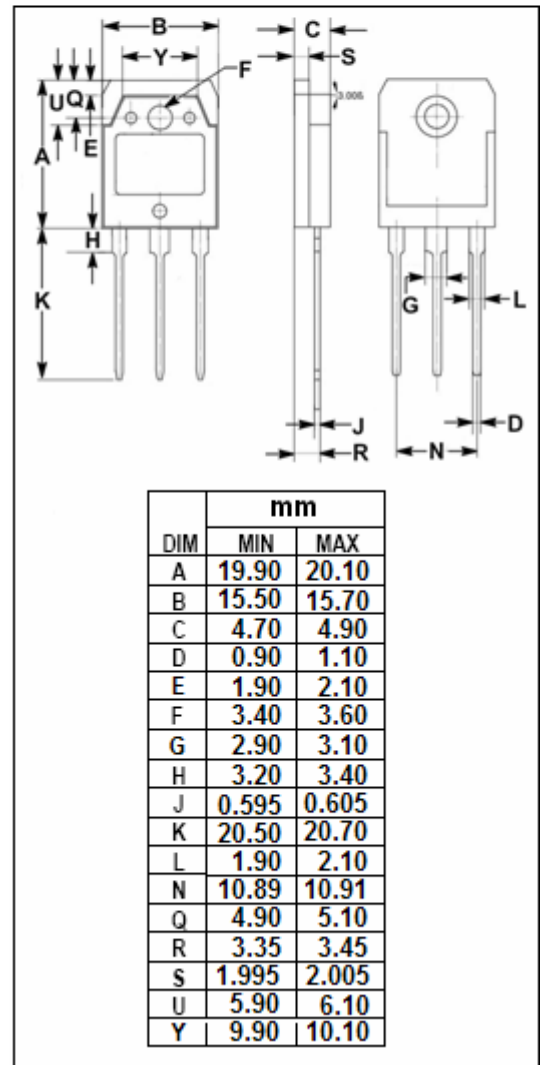
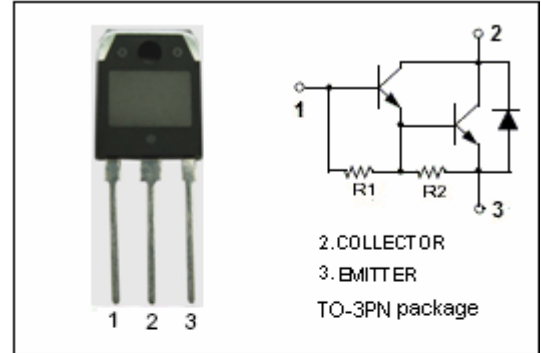
- High DC Current Gain  
:  $h_{FE} = 2000(\text{Min.}) @ I_C = 12A, V_{CE} = 4V$
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 120V(\text{Min})$

**APPLICATIONS**

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	120	V
$V_{CEO}$	Collector-Emitter Voltage	120	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	25	A
$I_{CM}$	Collector Current-Peak	35	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	120	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****2SD2256****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=200\text{mA}$ , $R_{BE}=\infty$	120			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=0.1\text{mA}$ , $I_E=0$	120			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=25\text{mA}$ , $R_{BE}=\infty$	120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=50\text{mA}$ , $I_C=0$	7			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=12\text{A}$ , $I_B=24\text{mA}$			2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=25\text{A}$ , $I_B=250\text{mA}$			3.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C=12\text{A}$ , $I_B=24\text{mA}$			3.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C=25\text{A}$ , $I_B=250\text{mA}$			4.5	V
$I_{CBO}$	Collector Cutoff current	$V_{CB}=100\text{V}$ , $I_E=0$			10	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff current	$V_{CE}=100\text{V}$ , $R_{BE}=\infty$			10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=12\text{A}$ ; $V_{CE}=4\text{V}$	2000		20000	
$h_{FE-2}$	DC Current Gain	$I_C=25\text{A}$ ; $V_{CE}=4\text{V}$	500			