

isc Silicon NPN Power Transistor

2SD2156

DESCRIPTION

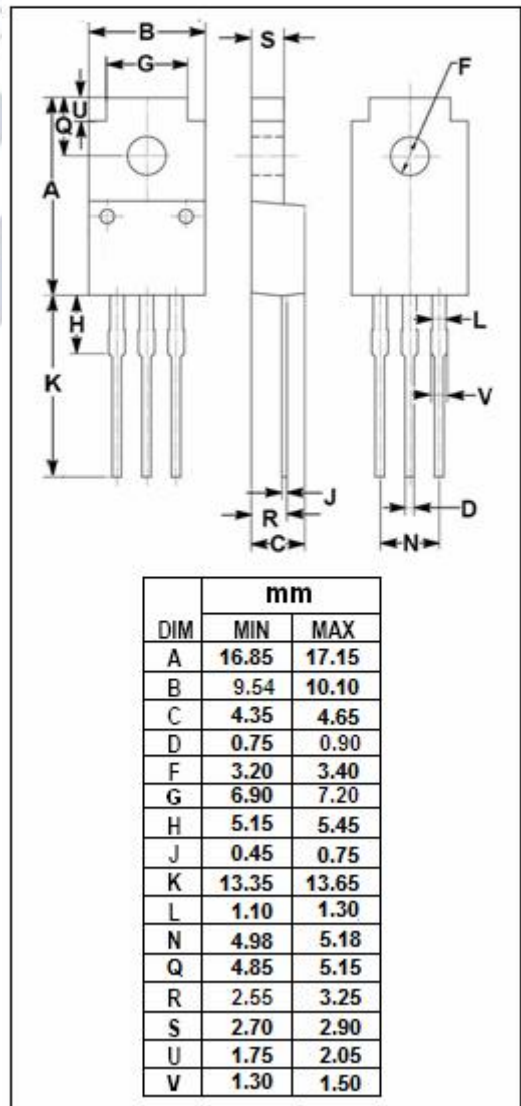
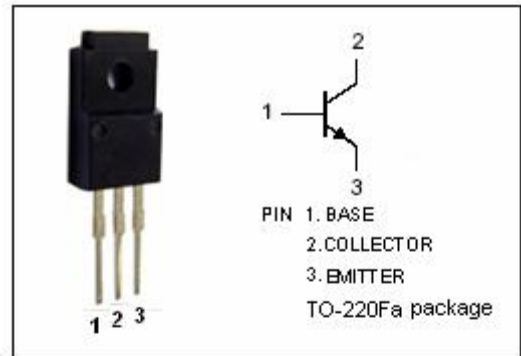
- High DC Current gain
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 2A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Good Linearity of h_{FE}
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplification

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	6	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	25	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD2156****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEO}	Collector-Emitter breakdown voltage	$I_C=25\text{mA}$; $I_B=0$	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}$; $I_B=0.05\text{A}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=80\text{V}$; $I_E=0$			100	μA
I_{CEO}	Collector Cutoff Current	$V_{CE}=40\text{V}$; $I_B=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}$; $I_C=0$			100	μA
h_{FE}	DC Current Gain	$I_C=0.5\text{A}$; $V_{CE}=4\text{V}$	500		2500	
f_T	Current-Gain—Bandwidth Product	$I_C=0.2\text{A}$; $V_{CE}=12\text{V}$, $f=10\text{MHz}$		50		MHz

◆ **h_{FE} Classifications**

Q	P	O
500-1000	800-1500	1200-2500