

isc Silicon NPN Power Transistor

2SD157

DESCRIPTION

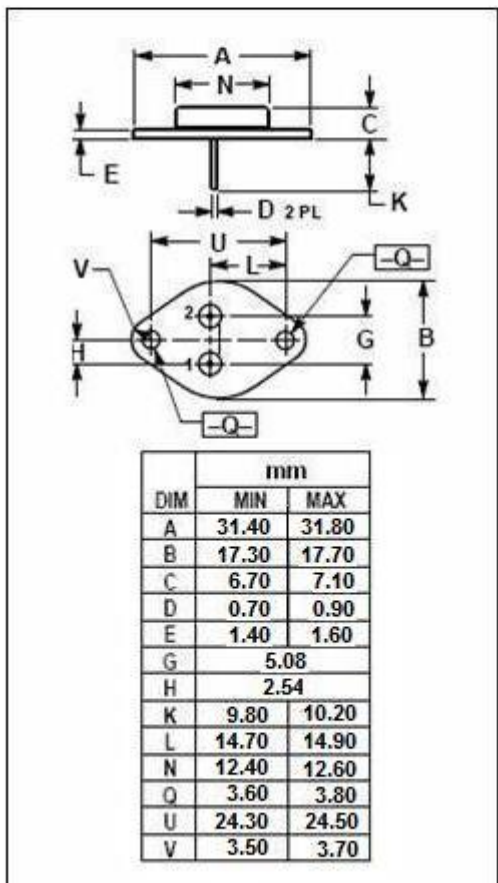
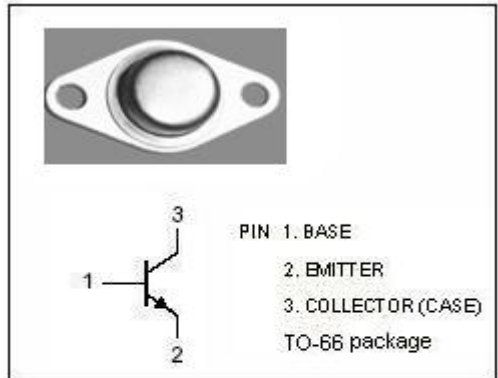
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 2.0V(\text{Max}) @ I_c = 50mA$
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in line-operated color TV chroma output circuits and sound output circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_c	Collector Current-Continuous	100	mA
P_c	Collector Power Dissipation @ $T_c=70^\circ\text{C}$	4	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD157****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	$I_C=5\text{mA}; I_B=0$	300			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}; I_E=0$	300			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}; I_C=0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=50\text{mA}; I_B=5\text{mA}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=50\text{mA}; I_B=5\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=300\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$			10	μA
h_{FE}	DC Current Gain	$I_C=50\text{mA}; V_{CE}=10\text{V}$	40		200	
h_{FE-2}	DC Current Gain	$I_C=2\text{A}; V_{CE}=2\text{V}$	20			
f_T	Current-Gain—Bandwidth Product	$I_C=50\text{mA}; V_{CE}=10\text{V}; f_{test}=1.0\text{MHz}$		20		MHz