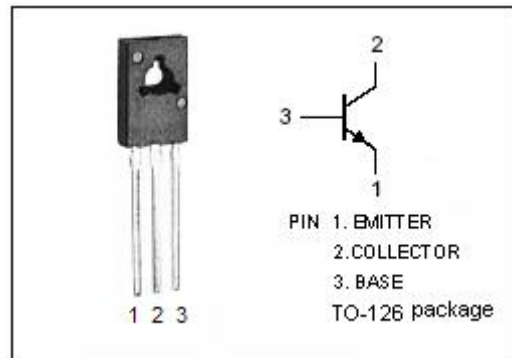


isc Silicon NPN Power Transistor
2SD2583
DESCRIPTION

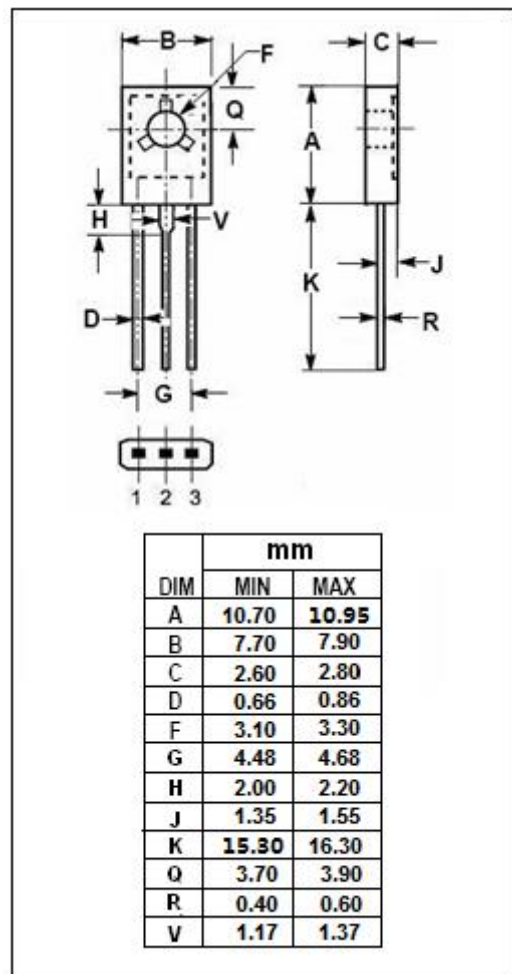
- High Collector Current- $I_C = 5A$
- Low Saturation Voltage -
: $V_{CE(sat)} = 0.15V(\text{Max}) @ I_C = 1A, I_B = 50mA$
- High DC Current Gain-
: $h_{FE} = 150 \sim 600 @ I_C = 1A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency amplifier and switching applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5.0	A
I_{CP}	Collector Current-Pulse	10	A
I_B	Base Current-Continuous	2.0	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	1.0	W
	Collector Power Dissipation @ $T_c = 25^\circ C$	10	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor

2SD2583

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=50\text{mA}$			0.15	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.1\text{A}$			0.25	V
$V_{CE(sat)-3}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.2\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.1\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=30\text{V}; I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}; I_C=0$			0.1	μA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}; V_{CE}=2\text{V}$	150		600	
h_{FE-2}	DC Current Gain	$I_C=4\text{A}; V_{CE}=2\text{V}$	50			
f_T	Current-Gain—Bandwidth Product	$I_C=50\text{mA}; V_{CE}=10\text{V}$		120		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}, f_{test}=1\text{MHz}$		77		pF

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