

isc Silicon NPN Power Transistor

2SD1348

DESCRIPTION

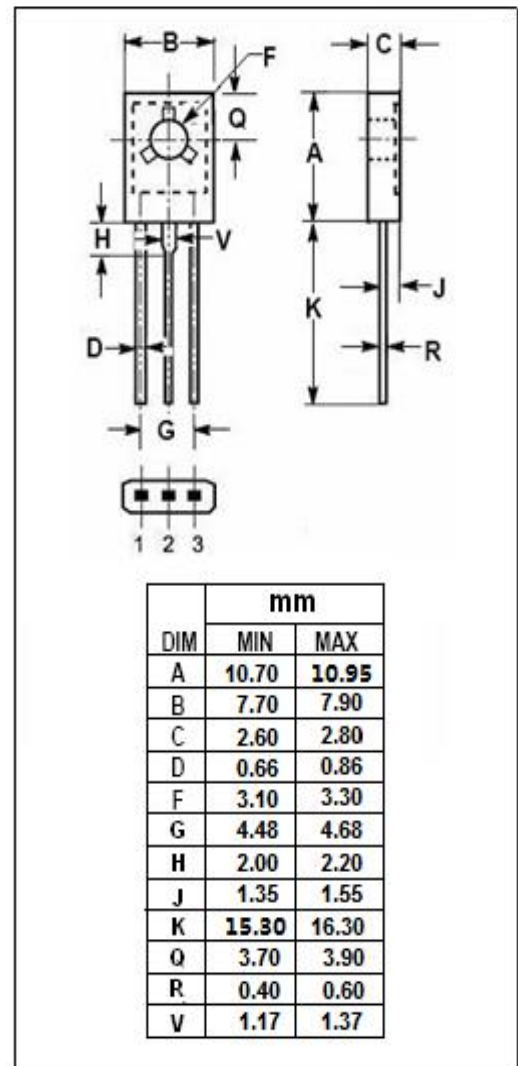
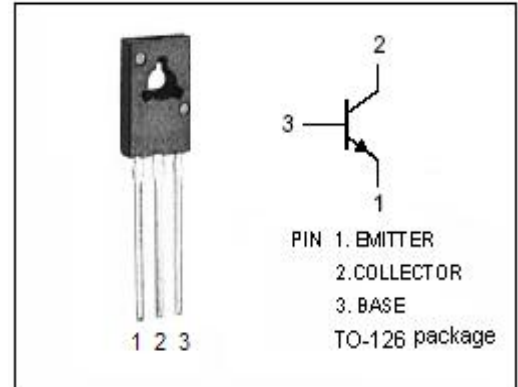
- High Collector Current- $I_C = 4.0A$
- Low Saturation Voltage -
: $V_{CE(sat)} = 0.5V(Max) @ I_C = 2A, I_B = 0.1A$
- Good Linearity of h_{FE}
- Complement to Type 2SB986
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power supplies, relay drivers, lamp drivers, electrical equipment applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_{CP}	Collector Current-Pulse	6	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	1.2	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**2SD1348****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=10\mu\text{A}; I_E=0$	60			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; R_{BE}=\infty$	50			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2.0\text{A}; I_B=0.1\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2.0\text{A}; I_B=0.1\text{A}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=40\text{V}; I_E=0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=2\text{V}$	100		560	
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=2\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_C=50\text{mA}; V_{CE}=10\text{V}$		150		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		25		pF

◆ h_{FE-1} Classifications

R	S	T	U
100-200	140-280	200-400	280-560

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