

isc Silicon PNP Power Transistor
3CD834
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -60V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -1.0V(\text{Max}) @ I_C = -3.0A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

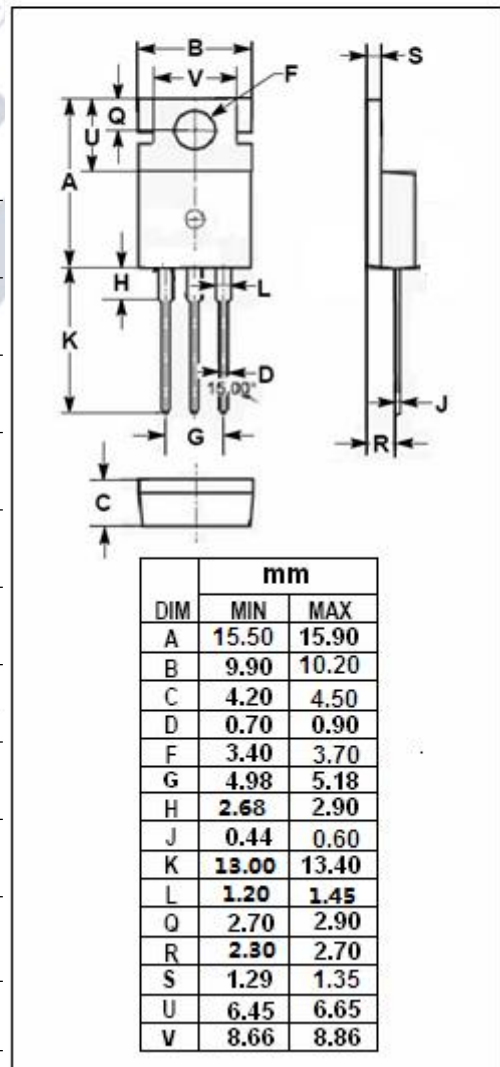
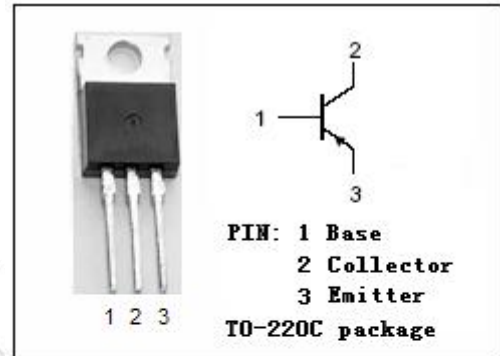
- Designed for use in audio frequency power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-3.0	A
I_B	Base Current-Continuous	-0.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{th-j-c}	Thermal Resistance, Junction to Case	4.16	$^\circ\text{C/W}$



isc Silicon PNP Power Transistor**3CD834****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	$I_C = -50\text{mA}; I_B = 0$	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3.0\text{A}; I_B = -0.3\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$			-1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -60\text{V}; I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -7\text{V}; I_C = 0$			-100	μA
h_{FE}	DC Current Gain	$I_C = -500\text{mA}; V_{CE} = -5\text{V}$	60		200	
C_{OB}	Collector Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1\text{MHz}$		150		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$		9		MHz

Switching times

t_{on}	Turn-on Time			0.4		μs
t_{stg}	Storage Time	$I_C = -2\text{A}, I_{B1} = -I_{B2} = -0.2\text{A}$ $R_L = 15\Omega; V_{CC} = -30\text{V}$		1.7		μs
t_f	Fall Time			0.5		μs

◆ h_{FE} Classifications

O	Y
60-120	100-200

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