

isc Silicon NPN Power Transistor

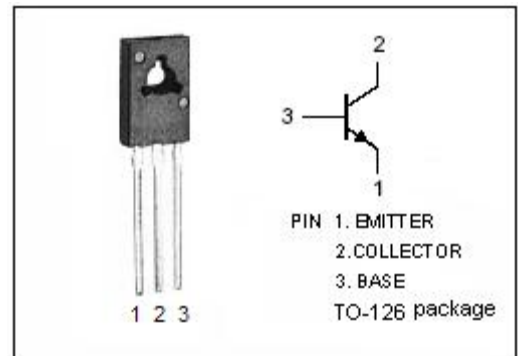
2SC3420

DESCRIPTION

- High Collector Current- $I_C = 5.0A$
- DC Current Gain-
: $h_{FE} = 70(\text{Min}) @ I_C = 4A$
- Low Saturation Voltage
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 4A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

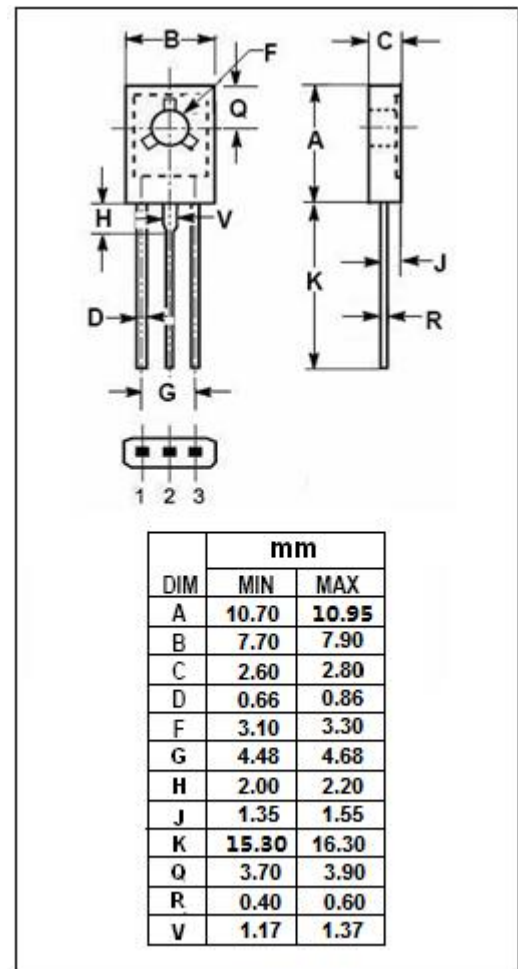
APPLICATIONS

- Strobe flash applications.
- Medium power amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	5	A
I_{CP}	Collector Current-Pulse	8	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	10	W
	Collector Power Dissipation @ $T_a = 25^\circ C$	1.5	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor**2SC3420****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	$I_C = 10\text{mA}$; $I_B = 0$	20			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4\text{A}$; $I_B = 0.1\text{A}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 4\text{A}$; $V_{CE} = 2\text{V}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 40\text{V}$; $I_E = 0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 8\text{V}$; $I_C = 0$			0.1	μA
h_{FE-1}	DC Current Gain	$I_C = 0.5\text{A}$; $V_{CE} = 2\text{V}$	140		600	
h_{FE-2}	DC Current Gain	$I_C = 4\text{A}$; $V_{CE} = 2\text{V}$	70			
f_T	Current-Gain—Bandwidth Product	$I_C = 0.5\text{A}$; $V_{CE} = 2\text{V}$		100		MHz
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = 10\text{V}$, $f_{test} = 1\text{MHz}$		40		pF

◆ **h_{FE-1} Classifications**

Y	GR	BL
140-240	200-400	300-600

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