

isc Silicon NPN Power Transistor

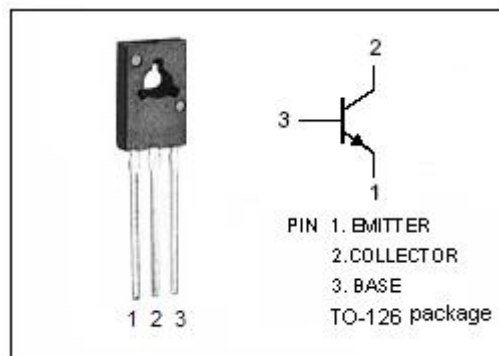
2SC3416

DESCRIPTION

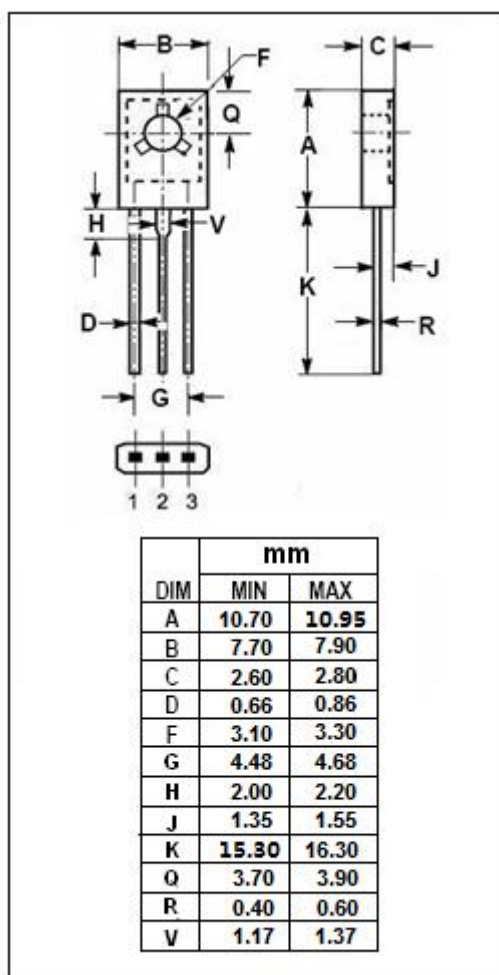
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = 200V$ (Min)
- Complement to Type 2SA1352
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for color TV chroma output, high-voltage driver applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous	0.1	A
I_{CM}	Collector Current-Peak	0.2	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.2	W
	Total Power Dissipation @ $T_C=25^\circ\text{C}$	5	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC3416****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μA; I _E = 0	200			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA; R _{BE} = ∞	200			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10 μA; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 20mA; I _B = 2mA			0.6	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 20mA; I _B = 2mA			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 150V; I _E = 0			0.1	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			0.1	μA
h _{FE}	DC Current Gain	I _C = 10mA; V _{CE} = 40V	40		320	
f _T	Current-Gain—Bandwidth Product	I _C = 10mA; V _{CE} = 30V		70		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 30V; f= 1.0MHz		1.7		pF

◆ h_{FE} Classifications

C	D	E	F
40-80	60-120	100-200	160-320

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