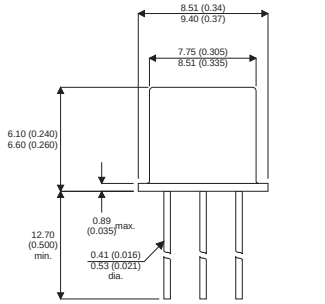
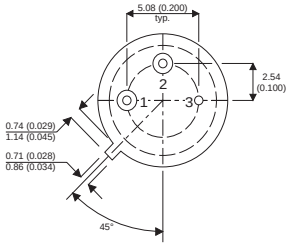
BSV64

MECHANICAL DATA

Dimensions in mm (inches)





Underside View
TO39 PACKAGE (TO-205AD)

Pin 1 = Emitter Pin 2 = Base Pin 3 = Collector

SILICON NPN PLANAR TRANSISTOR

FEATURES

- V_{CBO} = 100V
- V_{CEO} = 60V
- I_C = 2A

DESCRIPTION

General Purpose NPN Transistor in a Hermetic TO39 Package

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage (open emitter)	100V
V_{CER}	Collector – Emitter Voltage ($R_{BE} \leq 50\Omega$)	80V
V_{CEO}	Collector – Emitter Voltage (open base)	60V
V_{EBO}	Emitter – Base Voltage (open collector)	5V
I_C	Collector Current (d.c.)	2A
I_{CM}	Collector Current (peak value)	5A
I_B	Base Current (d.c.)	1A
P_{TOT}	Total Device Dissipation @ T_{amb} = 25°C	0.87W
P_{TOT}	Total Device Dissipation @ T_{Case} = 50°C	5W
$T_{stg,}$	Storage Temperature	–65 to 200°C
T_j	Junction Temperature	175°C
$R\theta_{j\text{-}c}$	Thermal Resistance Junction to Case	25°C / W
$R\theta_{j\text{-}a}$	Thermal Resistance Junction to Ambient	172°C / W

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
V_{CEsat}	Collector – Emitter Saturation Voltage	I_C = 5A	I_B = 0.5A			1	V
V_{BEsat}	Emitter – Base Saturation Voltage	I_C = 5A	I_B = 0.5A			1.8	
I_{CBO}	Collector Cut-off Current	V_{CB} = 60V	I_E = 0			10	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 4V	I_C = 0			10	
h_{FE}	DC Current Gain	V_{CE} = 2V	I_C = 5A	25			—
c_c	Collector Capacitance at f = 1MHz	$I_E = I_e$ = 0	V_{CB} =10V			80	pF
f_T	Transition Frequency at f = 20MHz	I_C = 0.5A	V_{CE} =5V	70	100		MHz
ton	Turn on Time	I_{Con} = 5A; I_{Bon} = $-I_{Boff}$ = 0.5A				0.6	µs
toff	Turn off time	$-V_{BEoff}$ = 2V				1.2	

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