2SC4548

TRANSISTOR (NPN)

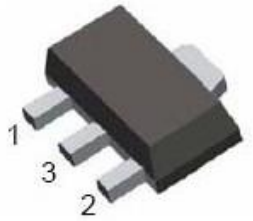
Features

- Small Flat Package
- High Breakdown Voltage
- Excellent hFE Linearity
- RoHS compliant package

Marking : BQ, BR, BS

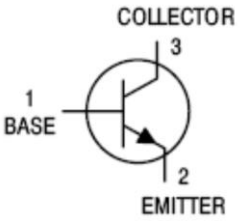
Packing & Order Information

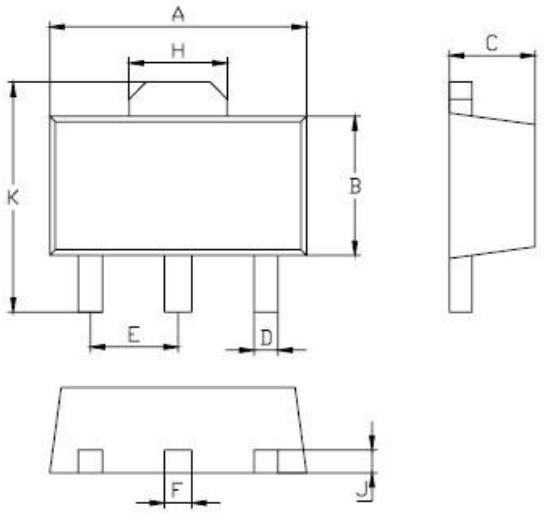
3,000/Reel

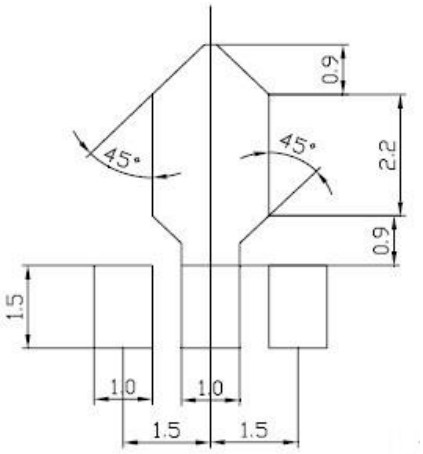


RoHS
COMPLIANT

Graphic symbol







SOT-89		
Dim	Min	Max
A	4.5	4.7
B	2.3	2.7
C	1.5Typical	
D	0.35	0.55
E	1.4	1.6
F	0.4	0.6
H	1.55	1.75
J	0.4Typical	
K	4.15	4.25
All Dimensions in mm		

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS (Ta=25˚C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
P_C	Collector Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	°C/W
Tj	Junction Temperature	150	°C
Tstg	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25˚C unless otherwise specified

Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C = 10μA , I_E = 0	400			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C = 1 mA , I_B = 0	400			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E = 10μA , I_C = 0	5			V
I_{CBO}	Collector cut-off current	V_{CB} = 300 V , I_E = 0			0.1	μA
I_{EBO}	Emitter cut-off current	V_{EB} = 4 V , I_C = 0			0.1	μA
h_{FE}	DC current gain	V_{CE} = 10 V , I_C = 50 mA	60		200	
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C = 50 mA , I_B = 5 mA			0.6	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C = 50 mA , I_B = 5 mA			1	V
f_T	Transition frequency	V_{CE} = 30 V , I_C = 10 mA		70		MHz
C_{ob}	Collector output capacitance	V_{CB} = 30 V , I_E = 0 f = 1.0MHz		4		pF

CLASSIFICATION OF h_{FE}

Marking	CN	
Rank	**D**	**E**
Range	60-120	100-200

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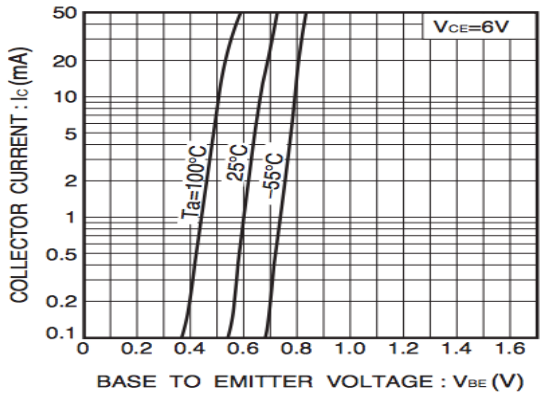

Fig 1 Grounded emitter propagation characteristics

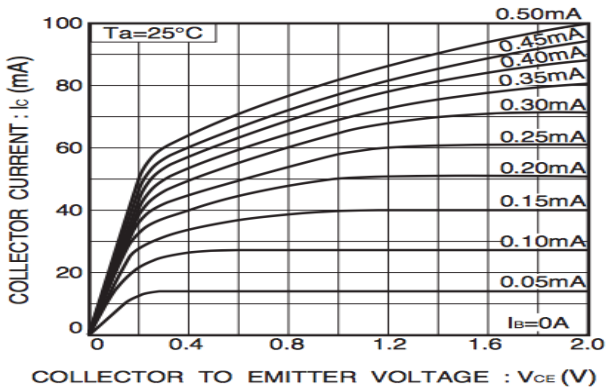

Fig 2 Grounded emitter output characteristics (I)

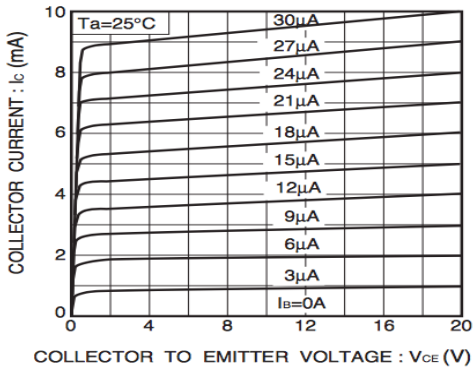

Fig 3 Grounded emitter output characteris tics (II)

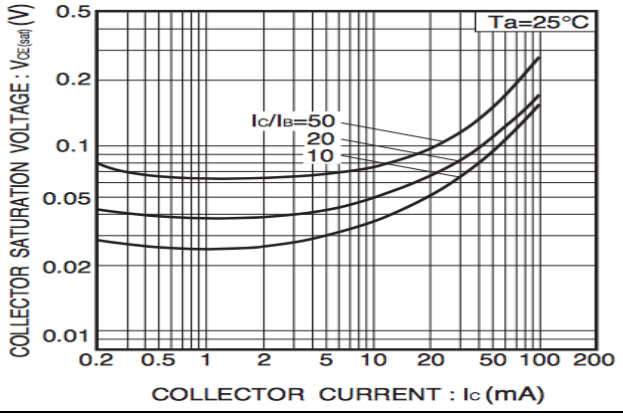

Fig 4 Collector-emitter saturation voltage vs. collector current

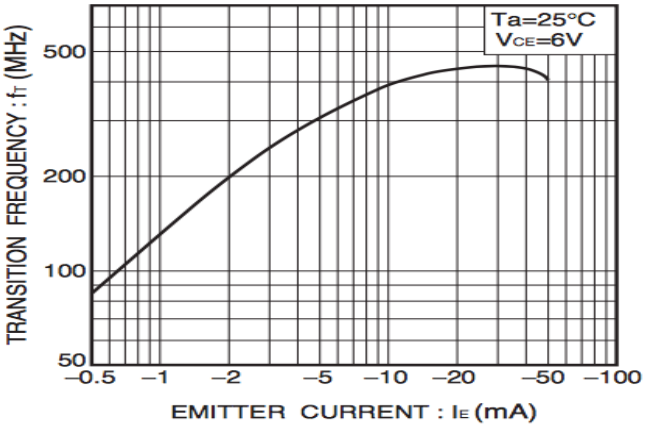

Fig 5 Gain bandwidth product vs. emitter current

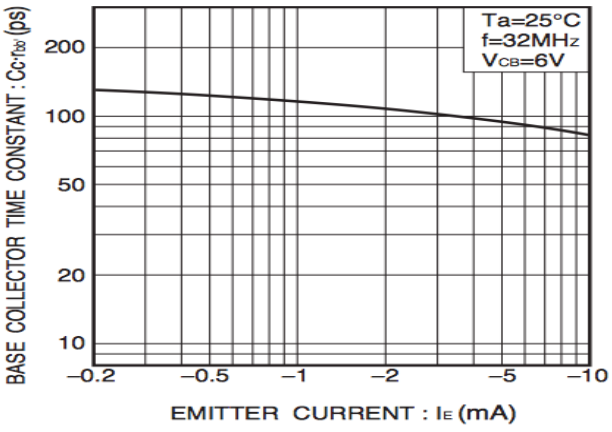

Fig 6 Base-collector time constant vs. emitter current

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