

TRANSISTOR (NPN)

Features

- Low Cob ,Cob = 2.0 pF (Typ).
- RoHS compliant package
- Case : SOT-323
- Marking : BQ, BR, BS

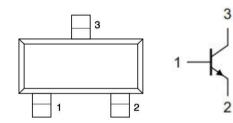
Packing & Order Information

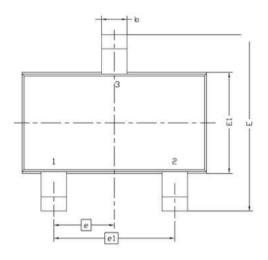
3,000/Reel

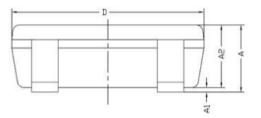


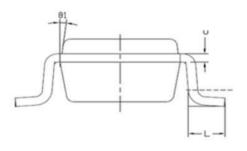
RoHS COMPLIANT

Graphic symbol









Cumbal	MILLIMETERS		
Symbol	MIN	MAX	
Α	0.8	1.2	
A1	0	0.1	
A2	0.7	1.1	
b	0.3	0.5	
С	0.1	0.2	
D	2.7	3.1	
E	2.6	3	
E1	1.4	1.8	
е	0.95 BSC		
e1	1.9 BSC		
L	0.3	0.6	
θ1	7° NOM		



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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	60	V		
V _{CEO}	Collector-Emitter Voltage	50	V		
V _{EBO}	Emitter-Base Voltage	7	V		
IC	Collector Current	150	mA		
P _C	Collector Dissipation	200	mW		
Тј	Junction Temperature	150	°C		
Tstg	Storage Temperature Range	-55 to +150	°C		

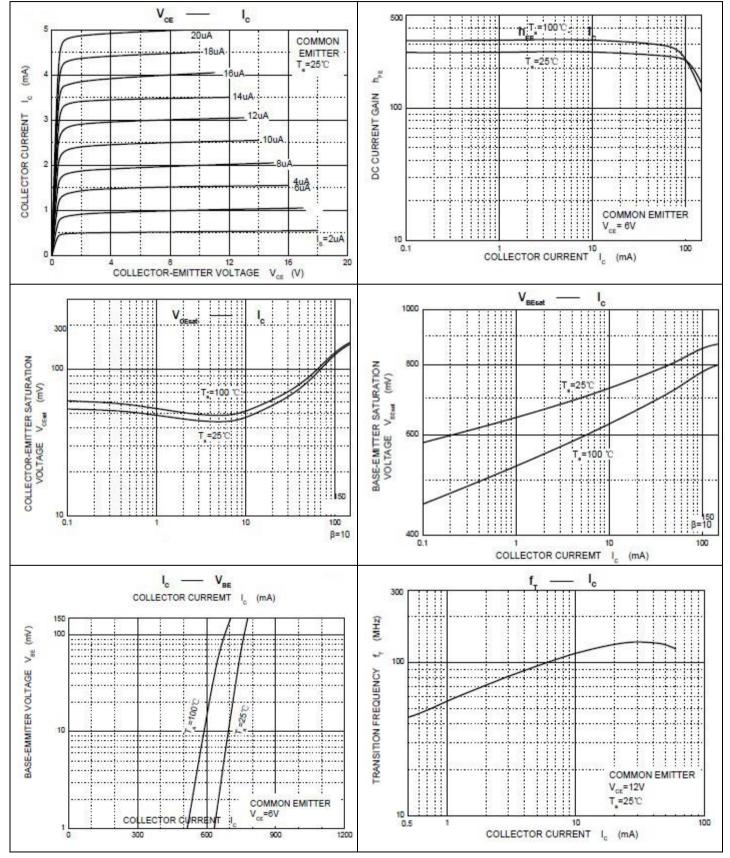
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified						
Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
V(BR)CBO	Collector-base breakdown voltage	$I_C=50\mu A$, $I_E=0$	60			v
V(BR)CEO	Collector-emitter breakdown voltage	$I_C = 1 \ mA \ , \ I_B = 0$	50			V
V _{(BR)EBO}	Emitter-base breakdown voltage	$I_E=50\mu A$, $I_C=0$	7			V
Ісво	Collector cut-off current	$V_{CB} = 60 \ V \ , \ I_E = 0$			0.1	μA
Іево	Emitter cut-off current	$V_{EB}=7\ V\ ,\ I_C=0$			0.1	μA
hfe	DC current gain	$V_{CE} = 6 V$, $I_C = 1 mA$	120		560	
V _{CE(sat)}	Collector-emitter saturation voltage	$I_C=50\ mA\ ,\ I_B=5\ mA$			0.4	v
f _T	Transition frequency	$V_{CE} = 12 \text{ V}, \text{ I}_{C} = -2 \text{ mA}$ $f = 1.0 \text{MHz}$		160		MHz
Cob	Collector output capacitance	$V_{CB} = 12 \ V \ , \ I_E = 0 \ \label{eq:eq:electron}$ $f = 1.0 MHz$		2	3.5	pF

CLASSIFICATION OF h _{FE}						
Marking	BQ	BR	BS			
Rank	Q	R	S			
Range	120-170	180-390	270-560			



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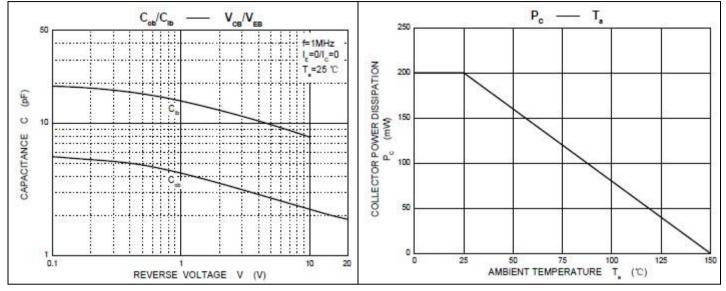
Typical Characterisitics





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