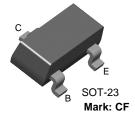


BSS79C

NPN General Purpose Amplifier

- This device is for use as a medium power amplifier and swith requiring collector currents up to 500mA.
- Sourced from process 19.
- See BCW65C for characteristics.



Absolute Maximum Ratings * T_a =25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V _{CEO}	Collector-Emitter Voltage	40	V	
V _{CBO}	Collector-Base Voltage	75	V	
V _{EBO}	Emitter-Base Voltage	6.0	V	
I _C	Collector Current - Continuous	800	mA	
T _J , T _{STG}	Operating and Storage Junction Temperature Range	-55 ~ +150	°C	

^{*} These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

- These ratings are based on a maximum junction temperature of 150 degrees C.
 These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics Ta=25°C unless otherwise noted

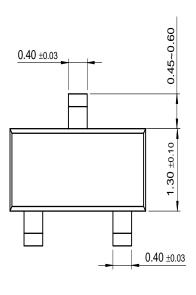
Symbol	Parameter	Test Condition	Min.	Max.	Units		
Off Characteristics							
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA, I _B = 0	75		V		
V _{(BR)CBO}	Collector-Base Breakdown Voltage	$I_C = 10\mu A, I_E = 0$	40		V		
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	$I_E = 10\mu A, I_C = 0$	6.0		V		
I _{CBO}	Collector-Cutoff Current	V _{CB} = 60V		10	nA		
		$V_{CB} = 60V, T_a = 150^{\circ}C$		10	μΑ		
I _{EBO}	Emitter-Cutoff Current	$V_{EB} = 3.0V, I_{C} = 0$		10	nA		
On Characteristics *							
h _{FE}	DC Current Gain	I _C = 150mA, V _{CE} = 10V	100	300			
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 150mA, I _B = 15mA		0.3	V		
` ,		$I_C = 500 \text{mA}, I_B = 50 \text{mA}$		1.0	V		
Small Signal Characteristics							
f _T	Current Gain - Bandwidth Product	$I_C = 20 \text{mA}, V_{CE} = 20 \text{V}, f = 100 \text{MHz}$		250	MHz		
C _{CB}	Collector-Base Capacitance	$V_{CB} = 10V, I_{E} = 0, f = 1.0MHz$		8.0	pF		
Switching Characteristics							
t _d	Delay Time	$V_{CC} = 30V, V_{BE(OFF)} = 0.5V,$		10	ns		
t _r	Rise Time	I _C = 150mA, I _{B1} = 15mA		10	ns		
t _s	Storage Time	$V_{CC} = 30V, I_{C} = 150mA,$		265	ns		
t _f	Fall Time	$I_{B1} = I_{B2} = 15mA$		60	ns		

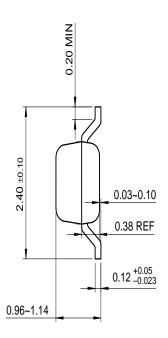
Symbol	Parameter	Max.	Units
P _D	Total Device Dissipation	350	mW
	Derate above 25°C	2.8	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

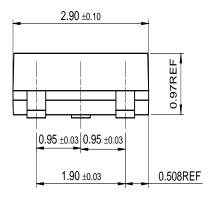
^{*} Device mounted on FR-4 PCB 400mm × 40mm × 1.5mm

Package Dimensions

SOT-23







Dimensions in Millimeters

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