Elektronische Bauelemente

BCP157

-3A, -80V

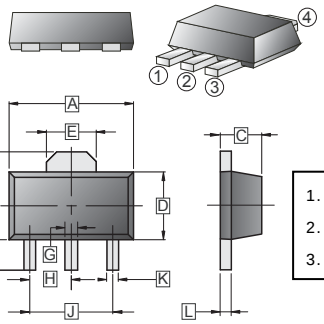
PNP Epitaxial Planar Transistor

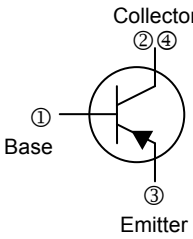
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- -60Volt V_{CEO}
- 3 Amp continuous current
- Low saturation voltage

SOT-89





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50 TYP	
C	1.40	1.60	J	3.00 TYP	
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.2			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7' inch

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter		Symbol	Ratings	Unit
Collector-Base Voltage		V_{CBO}	-80	V
Collector-Emitter Voltage		V_{CEO}	-60	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current -Continuous	DC	I_C	-3	A
	Pulse[1]		-6	
Collector Power Dissipation		P_C	0.5	W
		P_C[2]	2	
Junction & Storage temperature		T_J, T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-80	-	-	V	I_C= -100μA, I_E=0
Collector-emitter breakdown	$V_{(BR)CEO}$	-60	-	-	V	I_C= -10mA, I_B=0
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5	-	-	V	I_E= -100μA, I_C=0
Collector cut-off current	I_{CBO}	-	-	-0.1	μA	V_{CB}= -60V, I_E=0
Emitter cut-off current	I_{EBO}	-	-	-0.1	μA	V_{EB}= -4V, I_C=0
DC current gain	h_{FE}	70	200	-		V_{CE}= -2V, I_C= -50mA
		100	200	300		V_{CE}= -2V, I_C= -500mA
		80	170	-		V_{CE}= -2V, I_C= -1A
		40	150	-		V_{CE}= -2V, I_C= -2A
Collector-emitter saturation voltage	$V_{CE(sat)1}$	-	-150	-300	mV	I_C= -1A, I_B= -100mA
	$V_{CE(sat)2}$	-	-450	-600	mV	I_C= -3A, I_B= -300mA
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-0.9	-1.25	V	I_C= -1A, I_B= -100mA
Base-emitter saturation voltage On	$V_{BE(ON)}$	-	-0.8	-1	V	I_C= -1A, V_{CE}= -2V
Output capacitance	C_{CO}	-	-	30	pF	V_{CB}= -10V, I_E=0, f=1MHz
Transition frequency	f_T	100	140	-	MHz	V_{CE}= -5V, I_C= -100mA, f=100MHz
Switching Time	T_{ON}	-	40	-	nS	V_{CC}= -10V,I_C= -500mA, I_{B1}= -I_{B2}= -50mA
	T_{OFF}	-	450	-		

Note:

1. Measured under pulse condition. Pulse width<300us, Duty cycle<2%
2. Spice parameter data is available upon urquest for this device.

CHARACTERISTIC CURVES