Elektronische Bauelemente

2SBA42

0.2 A, 310 V

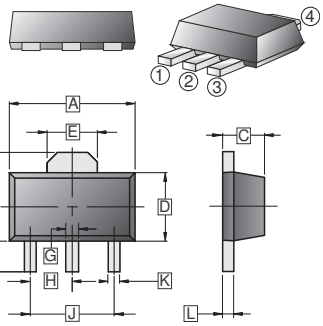
NPN Plastic Encapsulated Transistor

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

SOT-89

FEATURES

The 2SBA42 is designed for applications as a video output to drive color CRT, or as a dialer circuit in electronics telephone.

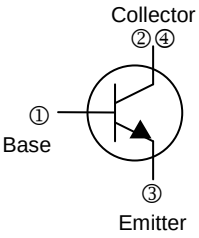


MARKING

A42

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	13' inch



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	1.20			

ABSOLUTE MAXIMUM RATINGS (T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	310	V
Collector-Emitter Voltage	V_{CEO}	305	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	0.2	A
Collector Current -Pulsed	I_{CM}	0.5	A
Collector Power Dissipation	P_D	0.5	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C / W
Junction & Storage Temperature	T_J, T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	310	-	-	V	I_C=100μA, I_E=0
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	305	-	-	V	I_C=1mA, I_B=0
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5	-	-	V	I_E=100μA, I_C=0
Collector cut-off current	I_{CBO}	-	-	0.25	μA	V_{CB}=200V, I_E=0
Collector cut-off current	I_{CEO}	-	-	0.25	μA	V_{CE}=200V, I_B=0
		-	-	5		V_{CE}=300V, I_B=0
Emitter cut-off current	I_{EBO}	-	-	0.1	μA	V_{EB}=5V, I_C=0
DC current gain	$h_{FE(1)}$	60	-	-		V_{CE}=10V, I_C=1mA
	$h_{FE(2)}$	100	-	300		V_{CE}=10V, I_C=10mA
	$h_{FE(3)}$	75	-	-		V_{CE}=10V, I_C=30mA
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.2	V	I_C=20mA, I_B=2mA
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	0.9	V	I_C=20mA, I_B=2mA
Transition frequency	f_T	50	-	-	MHz	V_{CE}=20V, I_C=10mA, f=30MHz