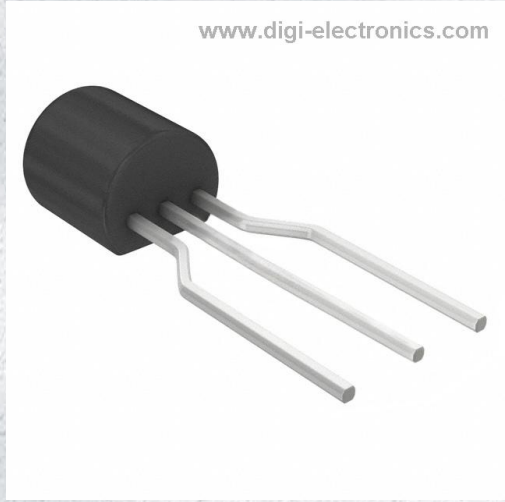
BC547-AP Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	BC547-AP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	BC547-AP
Description	TRANS NPN 45V 0.1A TO92
Detailed Description	Bipolar (BJT) Transistor NPN 45 V 100 mA 300MHz 625 mW Through Hole TO-92

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
BC547-AP	Micro Commercial Co
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
45 V	300mV @ 5mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
-	110 @ 2mA, 5V
Power - Max:	Frequency - Transition:
625 mW	300MHz
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA) Formed Leads	TO-92
Base Product Number:	
BC547	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0075	

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

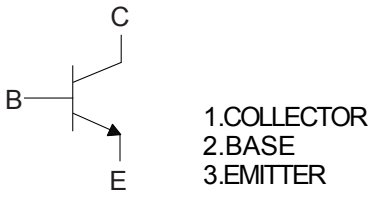
NPN Silicon Amplifier Transistor

Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Thermal Resistance: 200℃/W Junction to Ambient
- Thermal Resistance: 83.3℃/W Junction to Case

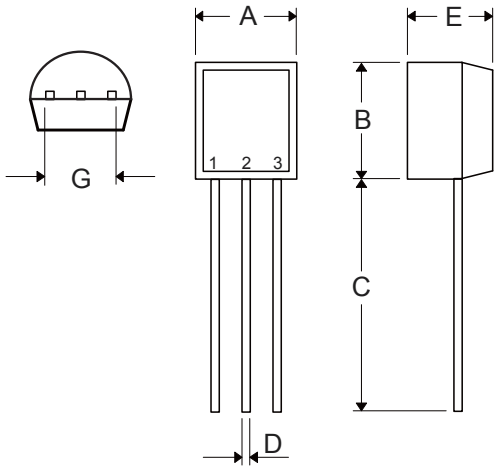
Parameter		Symbol	Rating	Unit
Collector-Base Voltage	BC546	V_{CBO}	80	V
	BC547		50	
	BC548		30	
Collector-Emitter Voltage	BC546	V_{CEO}	65	V
	BC547		45	
	BC548		30	
Emitter-Base Voltage	BC546	V_{EBO}	6	V
	BC547		6	
	BC548		6	
Continuous Collector Current		I_C	0.1	A
Power Dissipation @T_A=25°C		P_D	0.625	W
Power Dissipation @T_C=25°C		P_D	1.5	W

Internal Structure



1.COLLECTOR
2.BASE
3.EMITTER

TO-92



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	BC546	$V_{(BR)CBO}$	80			V	I_C=100μA, I_E=0
	BC547		50				
	BC548		30				
Collector-Emitter Breakdown Voltage	BC546	$V_{(BR)CEO}$	65			V	I_C=1mA, I_B=0
	BC547		45				
	BC548		30				
Emitter-Base Breakdown Voltage	BC546	$V_{(BR)EBO}$	6			V	I_E=10μA, I_C=0
	BC547		6				
	BC548		6				
Collector Cutoff Current	BC546	I_{CBO}			0.1	μA	V_{CB}=70V, I_E=0
	BC547				0.1	μA	V_{CB}=50V, I_E=0
	BC548				0.1	μA	V_{CB}=30V, I_E=0
Collector Cutoff Current	BC546	I_{CEO}			0.1	μA	V_{CE}=60V, I_B=0
	BC547				0.1	μA	V_{CE}=45V, I_B=0
	BC548				0.1	μA	V_{CE}=30V, I_B=0
Emitter Cutoff Current		I_{EBO}			0.1	μA	V_{EB}=5V, I_C=0
DC Current Gain		h_{FE}	110		800		V_{CE}=5V, I_C=2mA
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			0.3	V	I_C=100mA, I_B=5mA
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			1	V	I_C=100mA, I_B=5mA
Base-Emitter On Voltage		$V_{BE(on)}$	0.55		0.7	V	V_{CE}=5V, I_C=2mA
					0.77	V	V_{CE}=5V, I_C=10mA
Output Capacitance		C_{ob}		1.7	4.5	pF	V_{CB}=10V, I_E=0, f=1MHz
Transition Frequency		f_T	150	300		MHz	V_{CE}=5V,I_C=10mA, f=100MHz

Classification of h_{FE}

Rank	A	B	C
Range	110-220	200-450	420-800

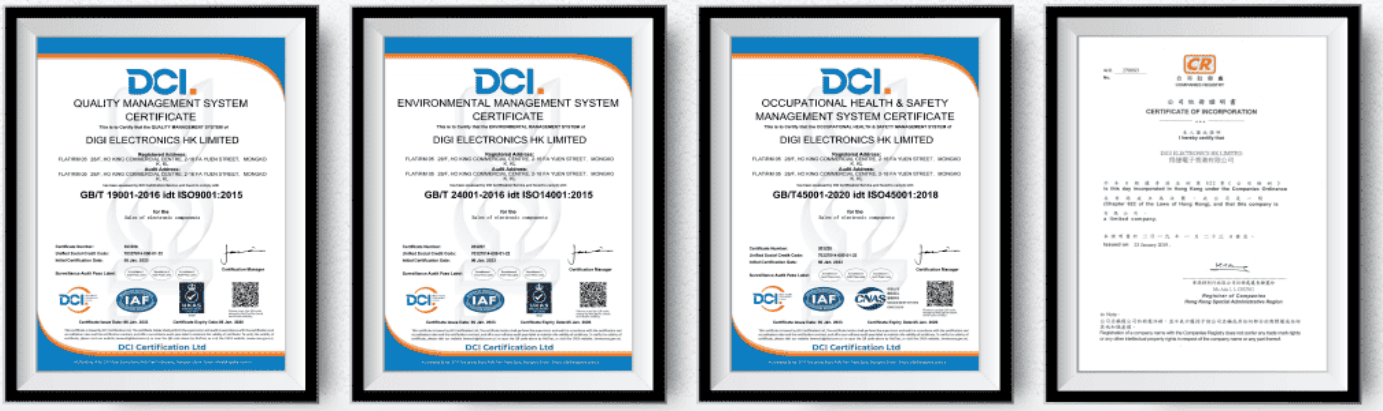
Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk:1k/Bag,100K/Ctn;

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



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DiGi is a global authorized distributor of electronic components.