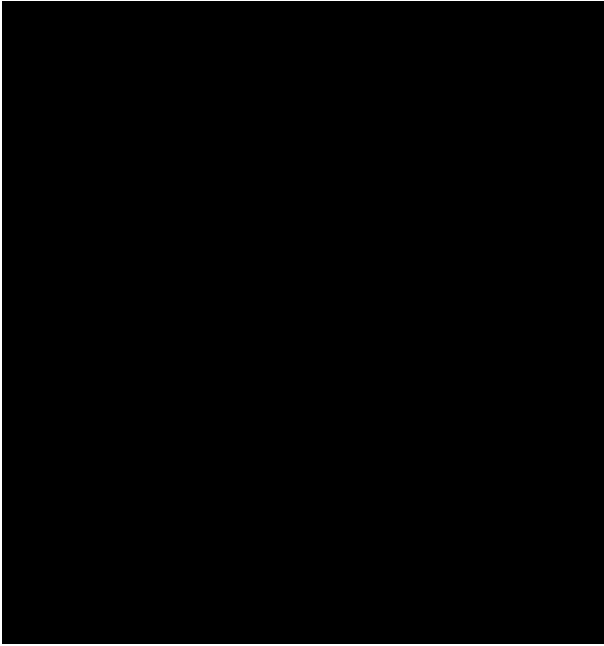




### DBD`D`Ugh]W!9bWUdgi`UhY`HfUbg]ghcf



#### :YUhi fYg`

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High power dissipation capability
- Part no. with suffix "Q" means AEC-Q101 qualified

#### 5dd`]WUh]cb`

- Linear voltage regulators
- Low-side switches
- Battery-driven devices
- MOSFET drivers
- Amplifiers

#### AYW\Ub]WU` 8UhU`

- DUW\_U[Y: SOT-223
- HYf a]bU`g. Tin plated leads, solderable per J-STD-002 and JESD22-B102
- AU`

DF9:9F98`D#B`	D57?-B ; `` 7C89`	IB=H`K9= ; <Hfl [L`	A=B=A I A` D57 ? 5 ; 9fidWgt`	=BB9F`6CL` E I 5BH=HMfidWgt`	C I H9F`75FHCB` E I 5BH=HMfidWgt`	89@=J9FM`AC89`
BCP53-16Q	F2	Approximate 0.11	2500	5000	25000	13" reel



## 67D) '!%\* E`

AUI]a i a 'FUh]b[g (Ta=25 unless otherwise noted)

Symbol	Parameter	Unit	Value	
	Collector-Emitter Voltage	V <sub>CEO</sub>	V	-80
	Collector-Base Voltage	V <sub>CBO</sub>	V	-100
	Emitter-Base Voltage	V <sub>EBO</sub>	V	-5
	Collector Current	I <sub>C</sub>	A	-1
	Power Dissipation (*)	P <sub>D</sub>	W	1.5
	Thermal Resistance From Junction To Ambient (*)	R <sub>JA</sub>	/W	83.3
	Thermal Resistance From Junction To Solder Point	R <sub>JS</sub>	/W	16
	Operation Junction Temperature	T <sub>J</sub>		-55 to +150
	Storage Temperature	T <sub>stg</sub>		-55 to +150

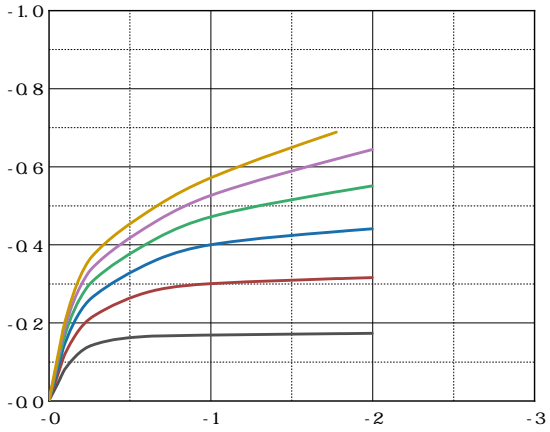
(\*) Device mounted on FR-4 PCB 1.575 x 1.575 x 0.0625 inch; mounting pad for collector =0.93 sq in

9`YWhf]WU`7\UfUWhYf]gh]Wg` (Ta=25 unless otherwise noted)

Symbol	Parameter	Unit	Test Conditions	Value	HMD	AUI	
	Collector-base breakdown voltage	V <sub>CBO</sub>	V	I <sub>C</sub> = -100 A, I <sub>E</sub> =0	-100	-	-
	Collector-emitter breakdown voltage	V <sub>CEO</sub>	V	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-80	-	-
	Emitter-base breakdown voltage	V <sub>EBO</sub>	V	I <sub>E</sub> = -100 A, I <sub>C</sub> =0	-5	-	-
	Collector-base cut-off current	I <sub>CBO</sub>	nA	V <sub>CB</sub> = -30V, I <sub>E</sub> =0	-	-	-100
	Collector-emitter cut-off current	I <sub>EBO</sub>	nA	V <sub>EB</sub> = -5V, I <sub>C</sub> =0	-	-	-100
DC current gain	h <sub>FE</sub>			V <sub>CE</sub> = -2V, I <sub>C</sub> = -5mA	63	-	-
	h <sub>FE</sub>			V <sub>CE</sub> = -2V, I <sub>C</sub> = -150mA	100	-	250
	h <sub>FE</sub>			V <sub>CE</sub> = -2V, I <sub>C</sub> = -500mA	40	-	-
	Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	V	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA	-	-	-0.5
	Base-Emitter Voltage	V <sub>BE</sub>	V	V <sub>CE</sub> = -2V, I <sub>C</sub> = -500mA	-	-	-1
	Collector-Base Capacitance	C <sub>ob</sub>	pF	V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1MHz	-	15	-
	Transition frequency	f <sub>T</sub>	MHz	V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA, f=30MHz	100	-	-



7 \UfUWhYf]gh]Wg (Typical)



0123456789

Base-Emitter Voltage V (V)





67D) ' !%\* E`

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8]gW'U]a Yf`

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