

## isc Silicon NPN Power Transistor

BFU520

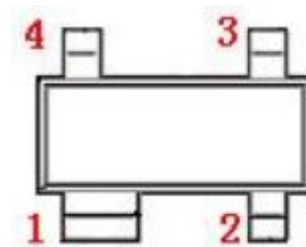
## DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 10V(\text{Min.})$
- Complement to Type BFU520
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for low frequency power amplifier applications.

SOT-143B

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	20	V
$V_{CEO}$	Collector-Emitter Voltage	10	V
$V_{EBO}$	Emitter-Base Voltage	2.5	V
$I_C$	Collector Current-Continuous	0.12	A
$I_{CM}$	Collector Current-Peak	0.48	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.2	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

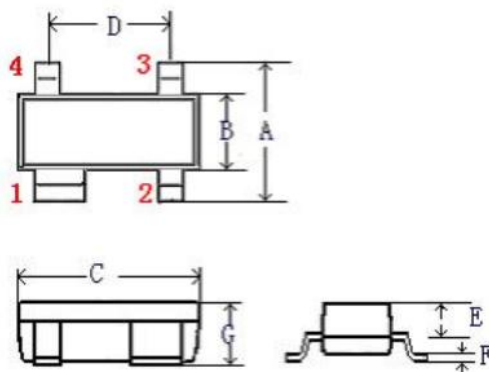
**isc Silicon NPN Power Transistor**
**BFU520**
**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 1 μA; I <sub>E</sub> = 0	20			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 10V; I <sub>E</sub> = 0			0.1	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 1V; I <sub>C</sub> = 0			0.1	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 15mA; V <sub>CE</sub> = 5V	90	150	250	
C <sub>OB</sub>	Output Capacitance	V <sub>CB</sub> =8V, I <sub>E</sub> =0mA, f=1MHz		0.65		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	V <sub>CE</sub> =8V, I <sub>C</sub> =40mA, f=1GHz		9		GHz

**PACKAGE OUTLINE**

Dimensions in mm (1mm = 0.0394")



DIM	mm	
	Min	Max
A	2.4	2.5
B	1.2	1.4
C	2.8	3
D	1.9	
F	0.45	0.55
G	0.09	0.15
H	1.7	

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