

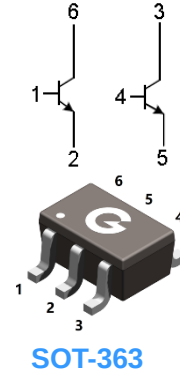
Features

- 10GHz f_T silicon technology
- Low noise, high breakdown RF transistor

HF

Mechanical Data

- Case: SOT-363
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BFU520Y	SOT-363	3000 pcs / Tape & Reel	U520G

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	24	V
Collector-Emitter Voltage	V_{CEO}	12	V
Emitter-Base Voltage	V_{EBO}	2	V
Collector Current	I_C	30	mA

Thermal Characteristics

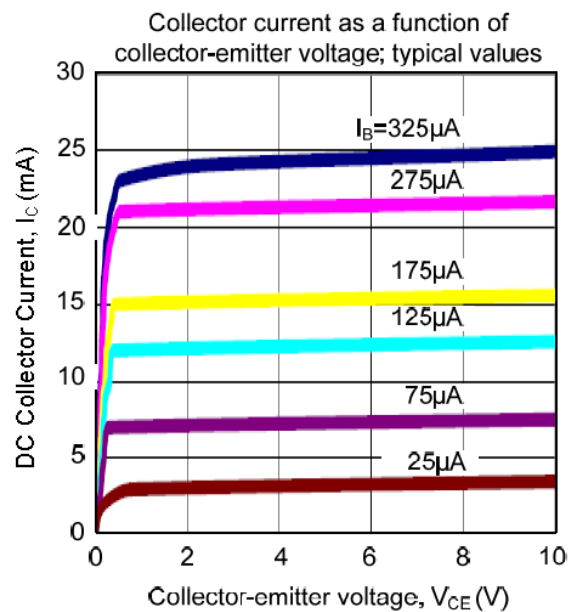
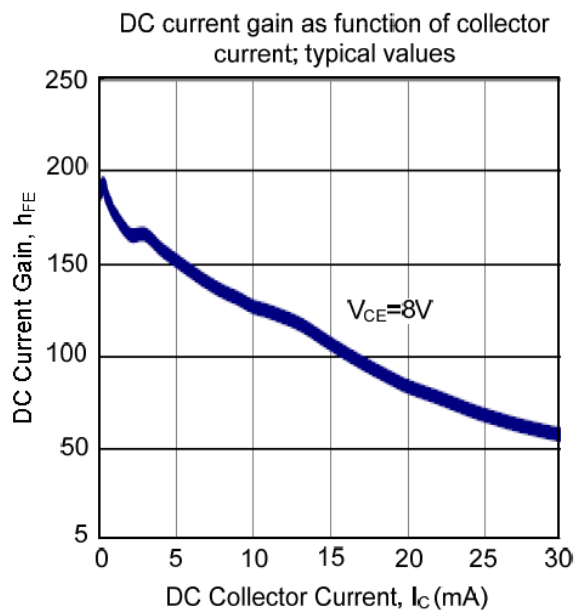
Parameter	Symbol	Value	Unit
Power Dissipation (Collector)	P_D	450	mW
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JL}$	140	$^\circ\text{C/W}$
Operating Junction Temperature	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

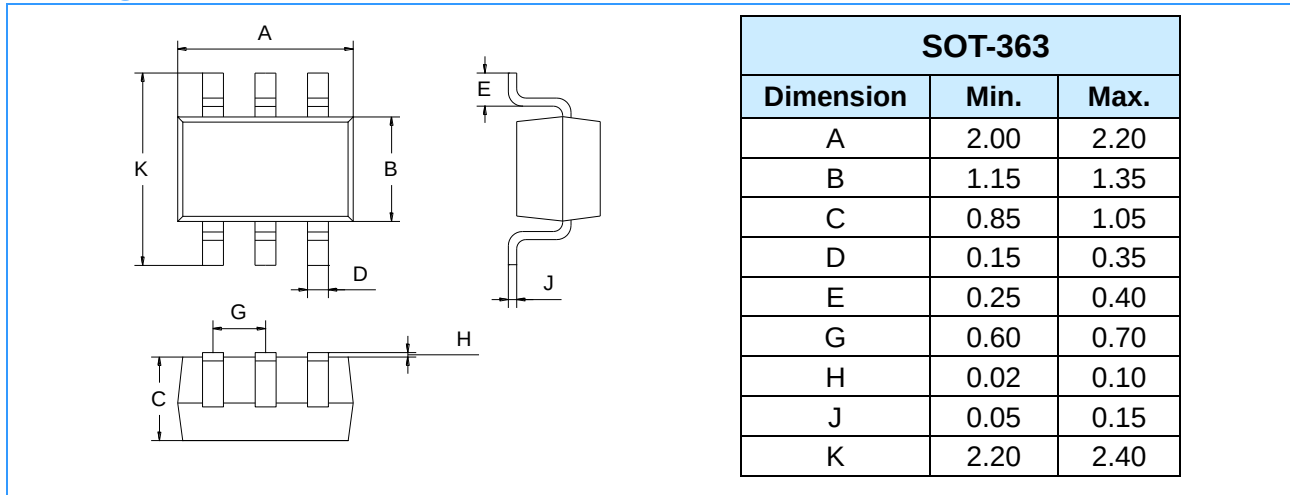
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\text{nA}, I_E = 0$	24	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 150\text{nA}, I_B = 0$	12	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 8\text{V}, I_E = 0$	-	1	-	nA
DC Current Gain	h_{FE}	$V_{CE} = 8\text{V}, I_C = 5\text{mA}$	60	-	200	-
Collector Capacitance	C_C	$V_{CE} = 8\text{V}, f = 1\text{MHz}$	-	0.48	-	pF
Emitter Capacitance	C_e	$V_{EB} = 0.5\text{V}, f = 1\text{MHz}$	-	0.64	-	pF
Feedback Capacitance	C_{re}	$V_{EB} = 8\text{V}, f = 1\text{MHz}$	-	0.3	-	pF
Transition Frequency	f_T	$V_{CE} = 8\text{V}, I_C = 10\text{mA}$ $f = 900\text{MHz}$	-	10	-	GHz

Note: If $K > 1$ then G_{P_MAX} is the maximum power gain. If $K < 1$ then $G_{P_MAX} = \text{MSG}$.

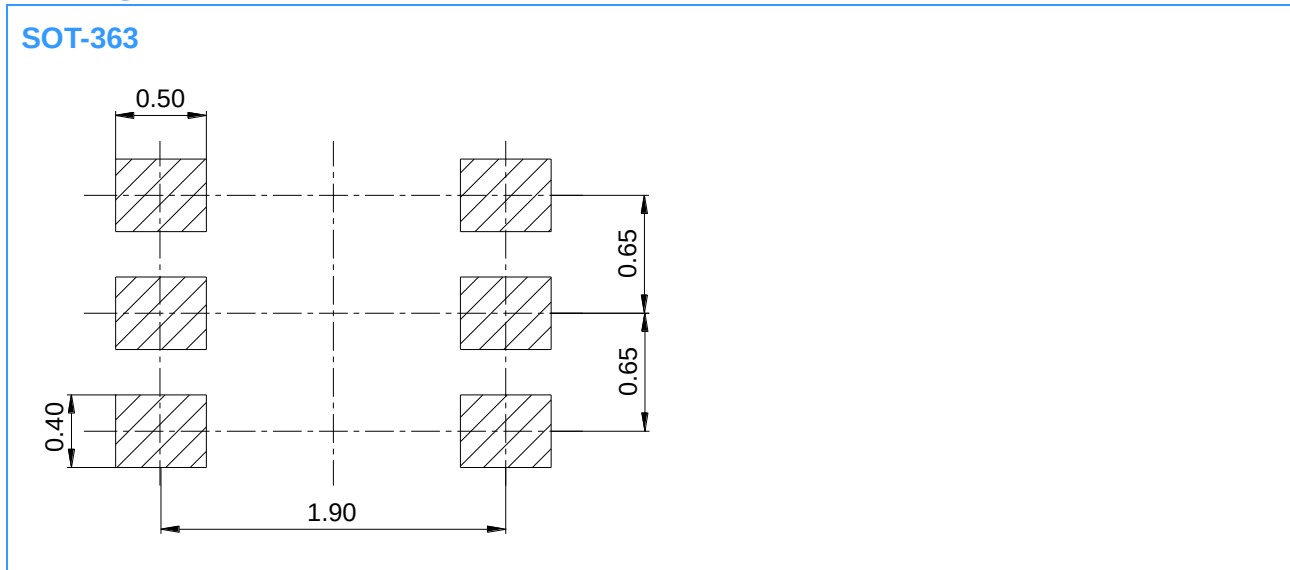
Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



IMPORTANT NOTICE

Changzhou Galaxy Century Microelectronics (GME) reserves the right to make changes without further notice to any product information (copyrighted) herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.