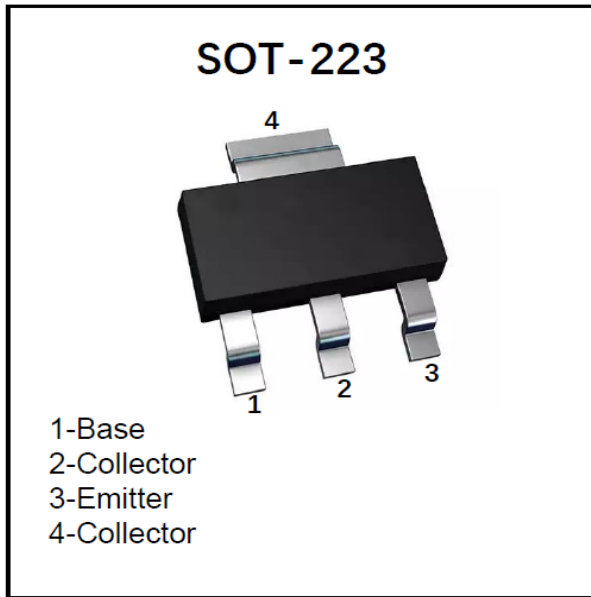


PNP Transistor



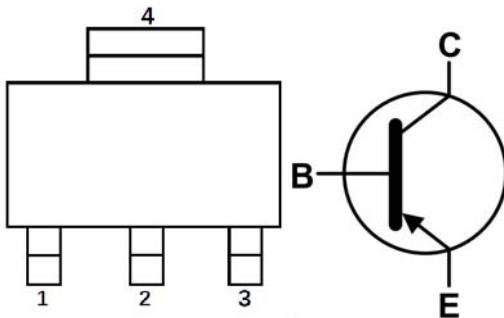
Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOT-223
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 5240Z

Equivalent circuit



Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CEO}	V	$I_C = -10mA, I_B = 0$	-40
Collector-Base Voltage	V_{CBO}	V	$I_C = -100\mu A, I_E = 0$	-40
Emitter-Base Voltage	V_{EBO}	V	$I_E = -100\mu A, I_C = 0$	-7
Collector Current	I_C	mA		-2
Peak Collector current	I_{CM}	A	single pulse, $t_p \leq 1ms$	-3
Base current	I_B	A		-0.3
Power Dissipation	$P_D^{(1)}$	mW		650
Thermal Resistance From Junction To Ambient	$R_{\theta JA}^{(1)}$	°C/W		192
Thermal Resistance, Junction-To-Case	$R_{\theta JC}^{(1)}$	°C/W		154
Operation Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

Note: (1) Device mounted on an FR4 Printed-Circuit Board (PCB), 35 um single-sided copper, tin-plated and standard footprint



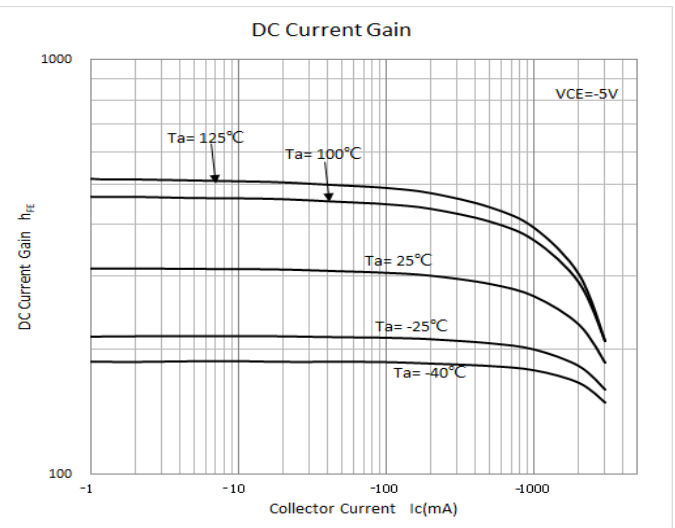
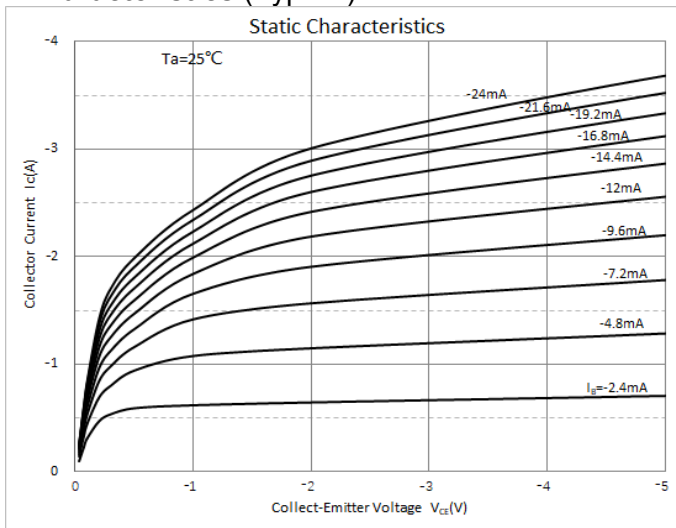
■ Electrical Characteristics (Ta=25°C unless otherwise noted)

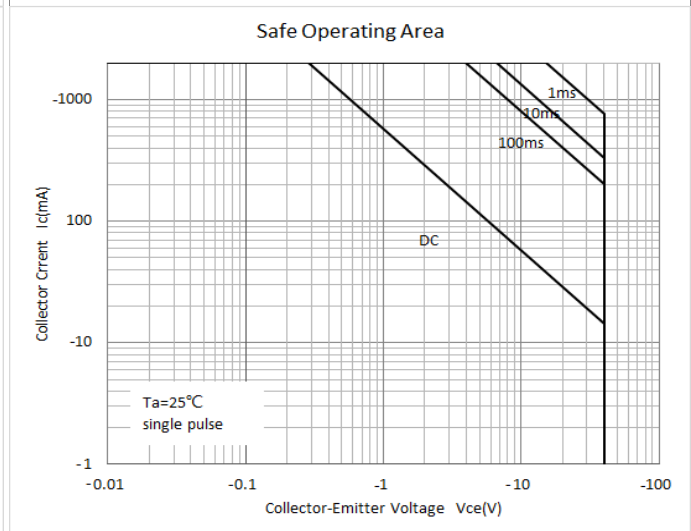
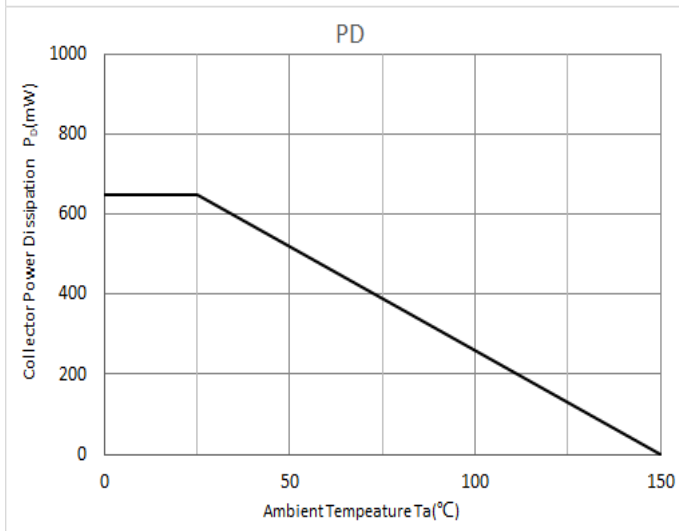
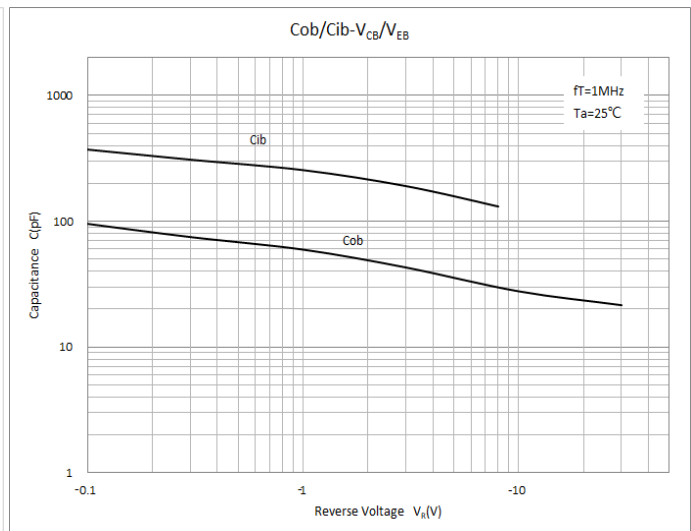
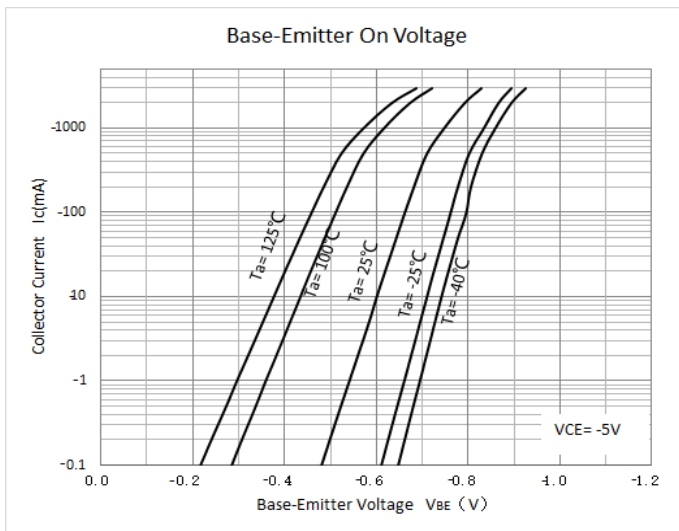
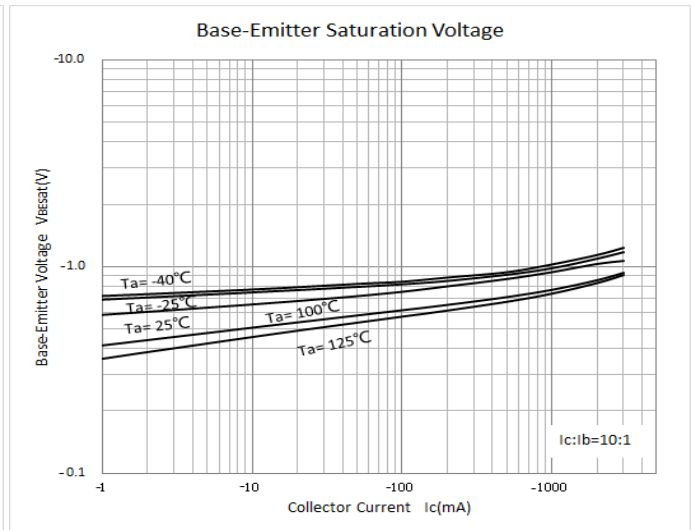
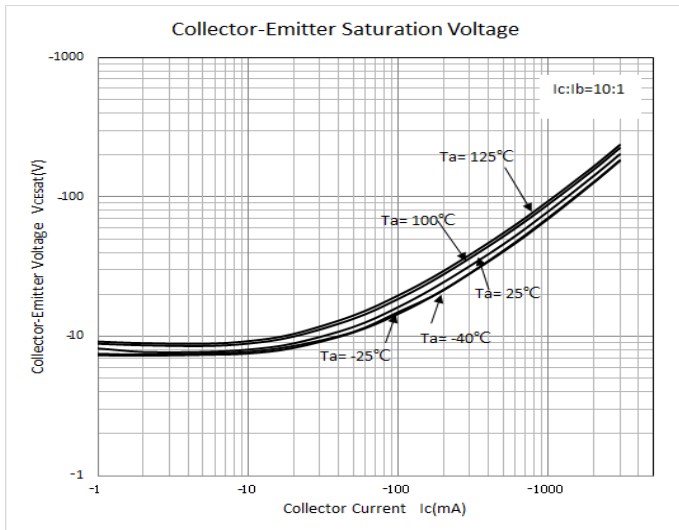
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-Base Breakdown Voltage	V_{CBO}	V	$I_C = -100\mu A, I_E = 0$	-40		
Collector-Emitter Breakdown Voltage	V_{CEO}	V	$I_C = -1mA, I_B = 0$	-40		
Emitter-Base Breakdown Voltage	V_{EBO}	V	$I_E = -100\mu A, I_C = 0$	-7		
Collector-Base Cut-Off Current	I_{CBO}	nA	$V_{CB} = -32V, I_E = 0$			-100
Collector-Emitter cut-off current	I_{CES}	nA	$V_{CE} = -32V, V_{BE} = 0V$			-100
Emitter-Base Cut-Off Current	I_{EBO}	nA	$V_{EB} = -5V, I_C = 0$			-100
DC Current Gain	h_{FE}		$V_{CE} = -5V, I_C = -1mA$	300		
			$V_{CE} = -5V, I_C = -0.5A$	215		
			$V_{CE} = -5V, I_C = -1A$	145		
			$V_{CE} = -5V, I_C = -2A$	55		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	mV	$I_C = -100mA, I_B = -1mA$			-140
			$I_C = -500mA, I_B = -50mA$			-170
			$I_C = -1A, I_B = -100mA$			-320
			$I_C = -2A, I_B = -200mA$			-650
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C = -1A, I_B = -100mA$			-1.2
Equivalent On-Resistance	$R_{CE(sat)}$	mΩ	$I_C = -1A, I_B = -100mA$			320
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	V	$V_{CE} = -5V, I_C = -1A$			-1.1
Output Capacitance	Cob	pF	$V_{CB} = -10V, I_E = 0, f = 1MHz$		12	

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJBS5240Z	F2	Approximate 0.11	2500	5000	25000	13" reel

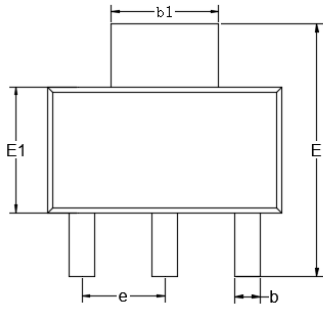
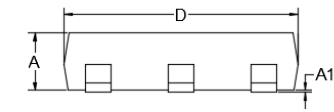
■ Characteristics (Typical)





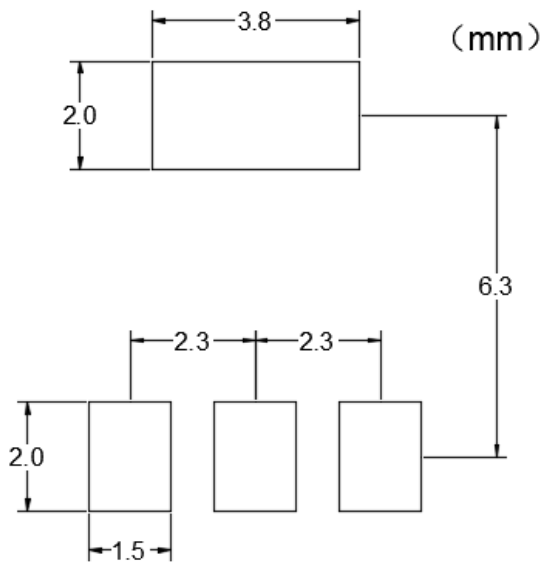


■SOT-223 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0591	0.0670	1.5000	1.7000
A1	0.0008	0.0039	0.0200	0.1000
b	0.0259	0.0330	0.6600	0.8400
b1	0.1140	0.1220	2.9000	3.1000
c	0.0090	0.0138	0.2300	0.3500
D	0.2480	0.2640	6.3000	6.7000
E	0.2637	0.2874	6.7000	7.3000
E1	0.1290	0.1460	3.3000	3.7000
e	0.0866	0.0945	2.2000	2.4000
L	0.0295	0.0492	0.7500	1.2500
θ	0°	10°	0°	10°

■SOT-223 Suggested Pad Layout





Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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