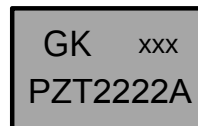
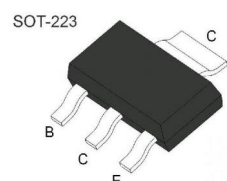


Features

Epitaxial planar die construction
Complementary PNP Type available (PZT2907A)



LOGO GK XXX CODE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

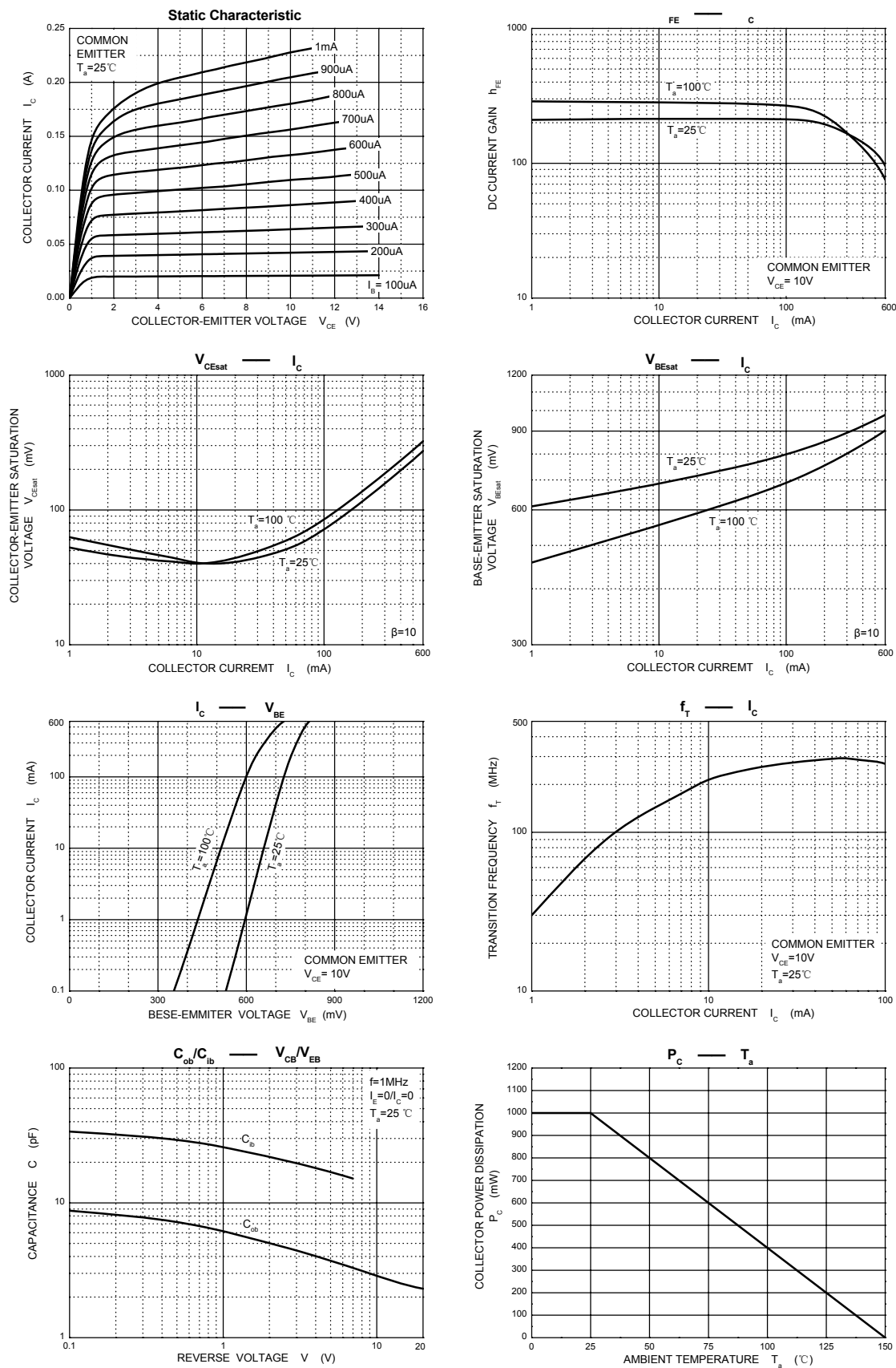
Absolute Maximum Ratings (Ta=25°C)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	600	mA
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~ +150	°C

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

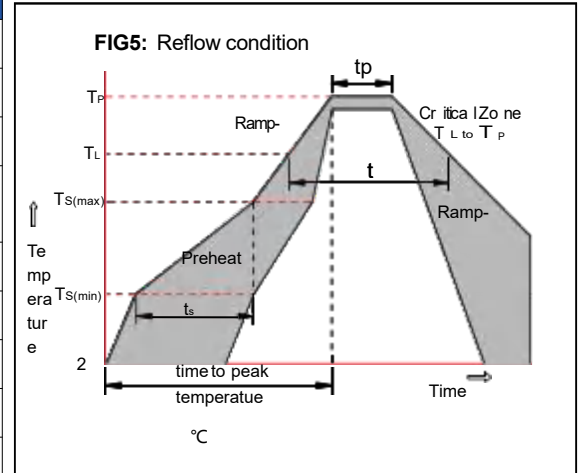
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$		10	nA
Collector cut-off current	I_{CEX}	$V_{CE} = 60V, V_{BE(off)} = 3V$		10	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3V, I_C = 0$		10	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = 10V, I_C = 0.1mA$	35		
	$h_{FE(2)}$	$V_{CE} = 10V, I_C = 1mA$	50		
	$h_{FE(3)}$	$V_{CE} = 10V, I_C = 10mA$	75		
	$h_{FE(4)}$	$V_{CE} = 10V, I_C = 150mA$	100	300	
	$h_{FE(5)}$	$V_{CE} = 1V, I_C = 150mA$	50		
	$h_{FE(6)}$	$V_{CE} = 10V, I_C = 500mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$		1	V
	$V_{CE(sat)}$	$I_C = 150mA, I_B = 15mA$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$		2.0	V
	$V_{BE(sat)}$	$I_C = 150mA, I_B = 15mA$		1.2	V
Transition frequency	f_T	$V_{CE} = 20V, I_C = 20mA, f = 100MHz$	300		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		8	pF
Delay time	t_d	$V_{CC} = 30V, I_C = 150mA$ $V_{BE(off)} = 0.5V, I_{B1} = 15mA$		10	ns
Rise time	t_r			25	ns
Storage time	t_s	$V_{CC} = 30V, I_C = 150mA$ $I_{B1} = -I_{B2} = 15mA$		225	ns
Fall time	t_f			60	ns

RATING AND CHARACTERISTIC CURVES



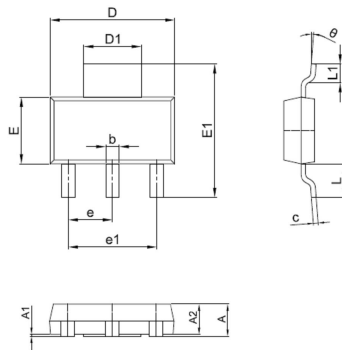
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

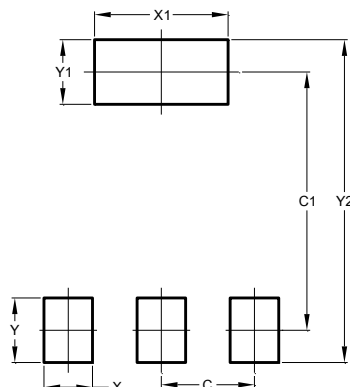


Package Dimensions & Suggested Pad Layout

SOT-223

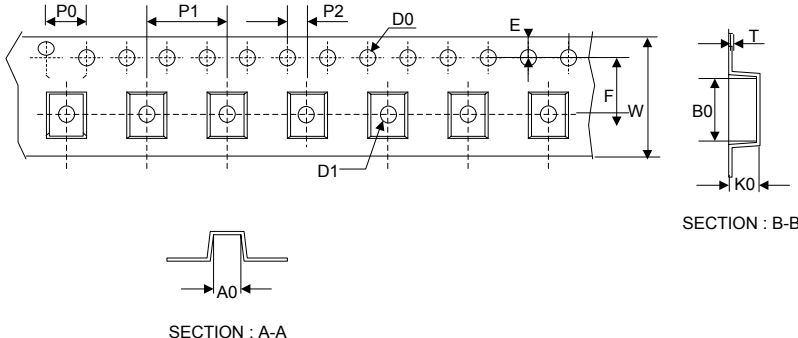
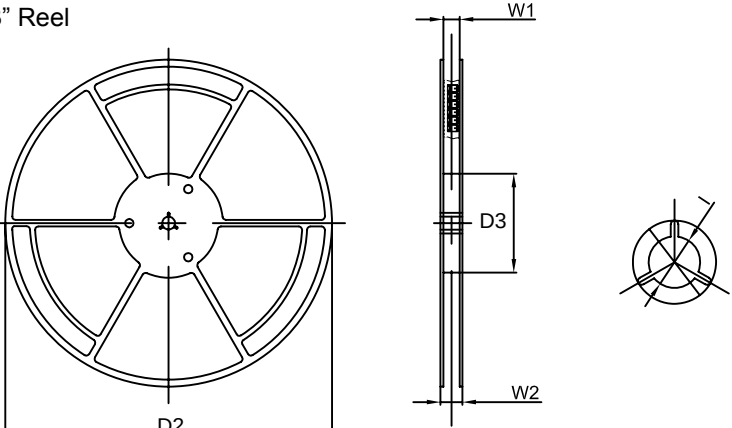


Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045



Dimensions	Value (in mm)
C	2.30
C1	6.00
X	1.20
X1	3.60
Y	1.70
Y1	1.70
Y2	7.70

Tape & reel specification

Tape		Symbol	Dimension (mm)
 SECTION : A-A SECTION : B-B		P0	4.00±0.20
		P1	8.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	1.55±0.20
		E	1.75±0.20
		F	5.50±0.20
		W	12.00±0.20
		A0	7.40±0.20
		B0	7.50±0.20
		K0	2.10±0.20
		T	0.20±0.20
		D2	330.0±5.0
		D3	100.0±4.0
13" Reel		W1	18.0±5.0
		D3	100.0±4.0
		W2	22.0±5.0
		I	13.0±2.0
		Quantity: 2500PCS	