

FEATURES

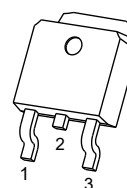
Electronic Ballasts For Fluorescent
Lighting And Changer .



LOGO GK XXX CODE

TO-252-2L

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	700	V
Collector-Emitter Voltage	BV_{CEO}	420	V
Emitter-Base Voltage	BV_{EBO}	9	V
Collector Current	I_C	1.0	A
Collector Power Dissipation	P_C	1.2	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

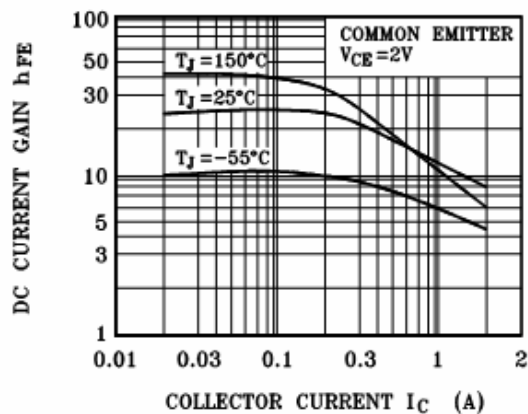
ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	700			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	420			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	9			V
Collector cut-off current	I_{CBO}	$V_{CB} = 700V, I_E = 0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 9V, I_C = 0$			100	μA
DC current gain*	h_{FE}	$V_{CE} = 5V, I_C = 0.2A$	10		40	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = 0.5A, I_B = 0.1A$			0.8	V
Base -emitter saturation voltage*	$V_{BE(sat)}$	$I_C = 0.5A, I_B = 0.1A$			1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10V, I_B = 100mA$	8			MHz
Turn On Time	t_f	$V_{CC} = 125V, I_C = 0.5A$			0.5	μs
	t_s	$I_{B1} = -I_{B2} = 0.1A$			4	μs

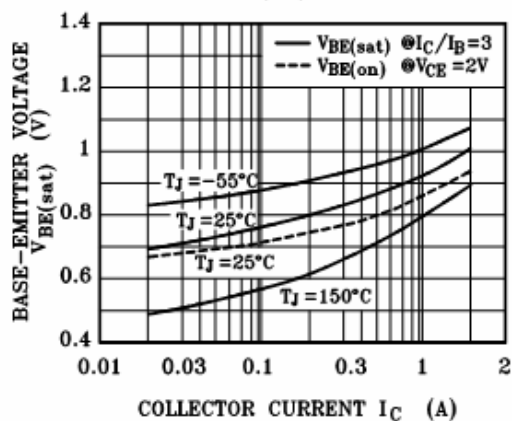
**Pulsed: Pulse duration = 300 μ s, duty cycle 1.5 %

RATING AND CHARACTERISTIC CURVES

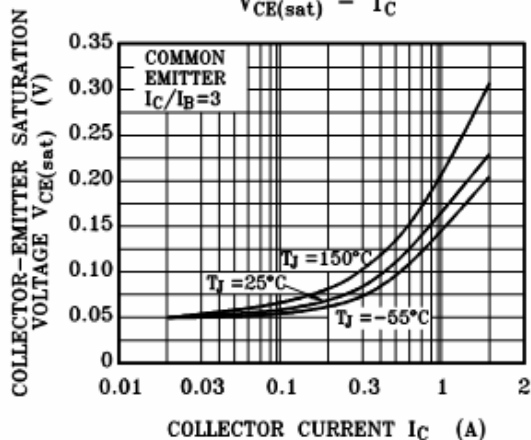
DC CURRENT GAIN



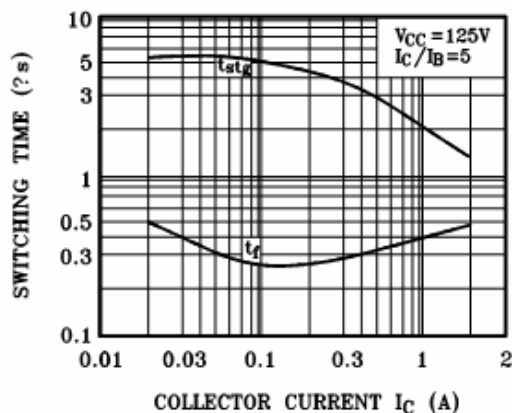
$V_{BE(sat)} - I_C$



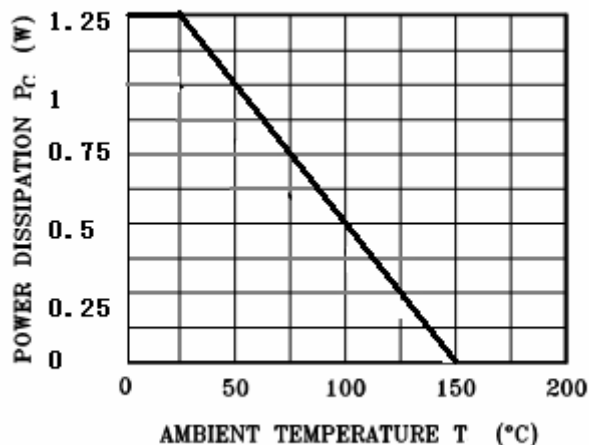
$V_{CE(sat)} - I_C$



SWITCHING CHARACTERISTIC

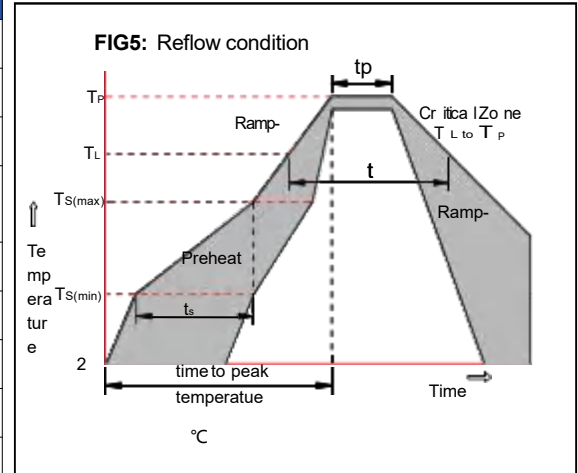


$P_C - T_a$



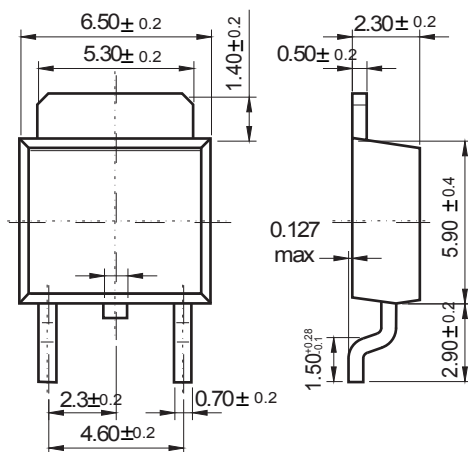
Soldering parameters

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

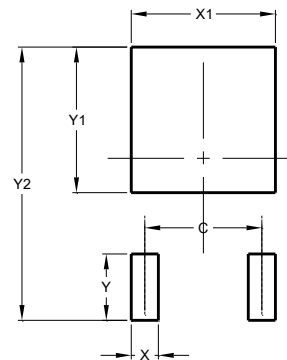


Package Dimensions & Suggested Pad Layout

TO-252



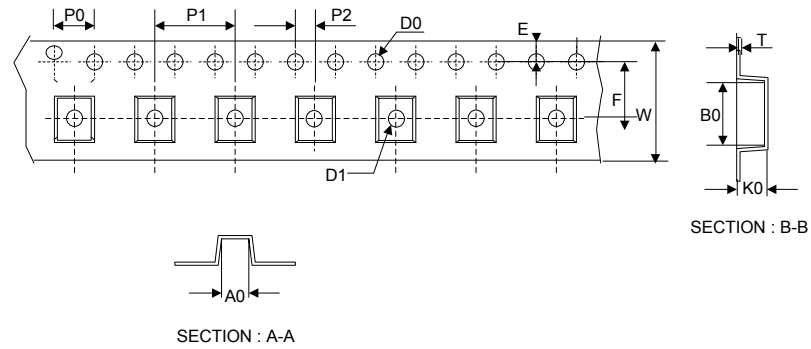
Dimensions in inches and (millimeters)



Dimensions	Value (in mm)
C	4.55
X	1.50
X1	5.80
Y	2.70
Y1	6.00
Y2	10.90

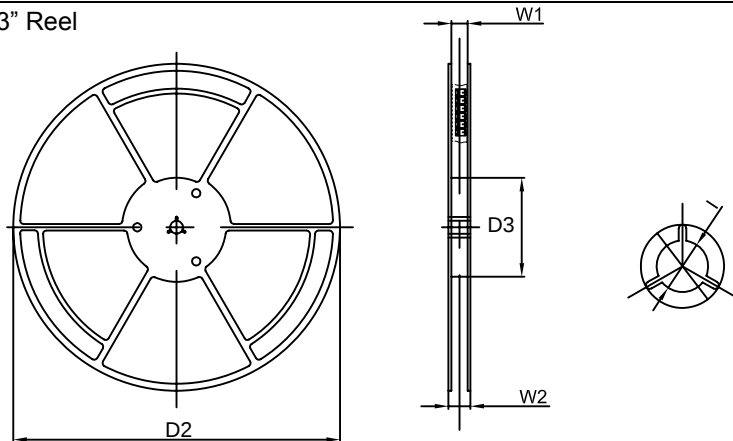
Tape & reel specification

Tape



Symbol	Dimension (mm)
P0	4.00±0.20
P1	8.00±0.20
P2	2.00±0.20
D0	1.55±0.15
D1	1.55±0.20
E	1.75±0.20
F	7.50±0.20
W	16.00±0.20
A0	7.10±0.20
B0	10.50±0.20
K0	2.70±0.20
T	0.30±0.10
D2	330.0±5.0
D3	100.0±4.0
W1	20.0±5.0
W2	25.0±5.0
I	13.0±2.0

13" Reel



Quantity: 2500PCS