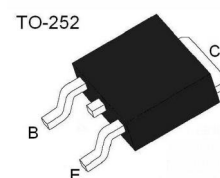
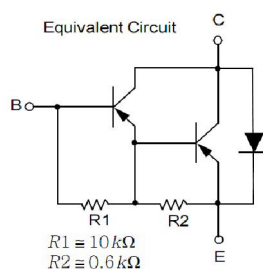


FEATURES

- Complementary to MJD112



LOGO GK XXX CODE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Parameter		Symbol	Value	Unit
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-100	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current(DC)		I_C	-3	A
Collector Dissipation	$T_c = 25^\circ\text{C}$	P_C	20	W
	$T_a = 25^\circ\text{C}$		1.75	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature		T_{stg}	-65~150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = -30mA, I_B = 0$	-100			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100V, I_E = 0$			-0.2	mA
Collector cut-off current	I_{CEO}	$V_{CE} = -50V, I_E = 0$			-0.5	mA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.2	mA
* DC current gain	h_{FE}	$V_{CE} = -3V, I_C = -0.5A$ $V_{CE} = -3V, I_C = -3A$	1000 1000			
*Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -12mA$ $I_C = -5A, I_B = -20mA$			-2 -4	V
* Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = -3V, I_C = -3A$			-2.5	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 0.1MHz$			100	pF

* Pulse Test : $PW \leq 300\mu s$, Duty cycle $\leq 2\%$

RATING AND CHARACTERISTIC CURVES

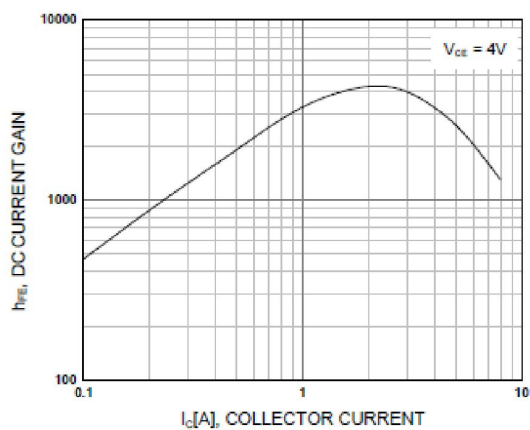


Figure 1. DC current Gain

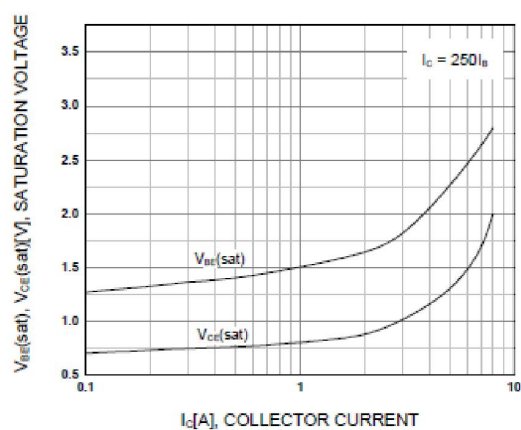


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

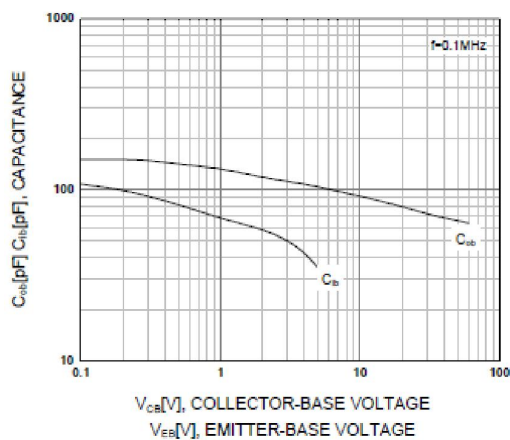


Figure 3. Output and Input Capacitance
vs. Reverse Voltage

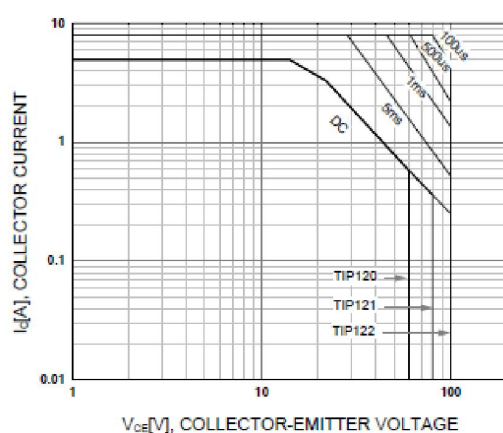


Figure 4. Safe Operating Area

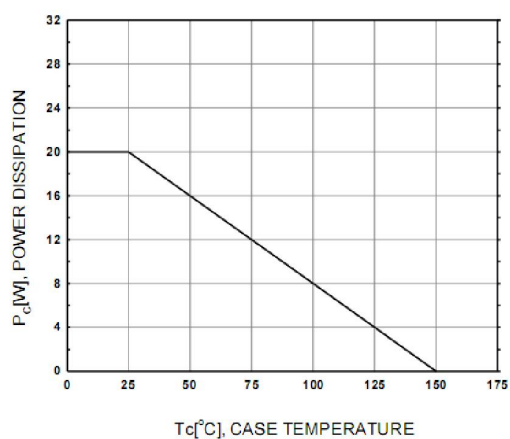
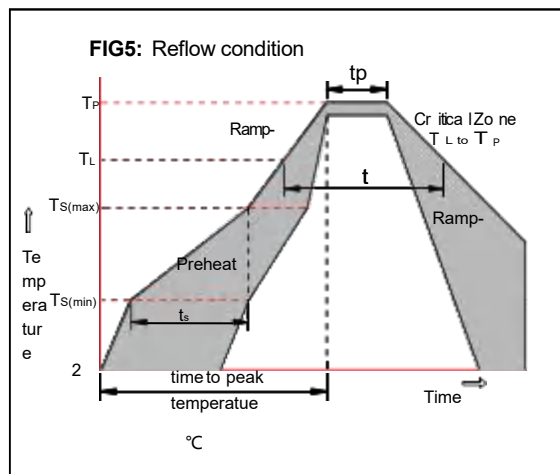


Figure 5. Power Derating

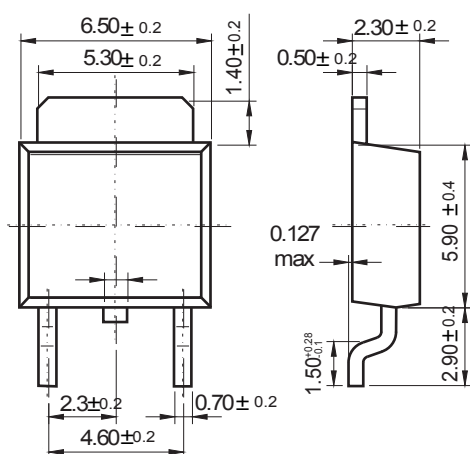
Soldering parameters

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

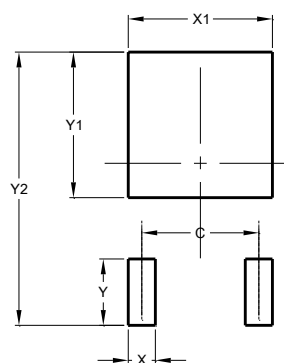


Package Dimensions & Suggested Pad Layout

TO-252



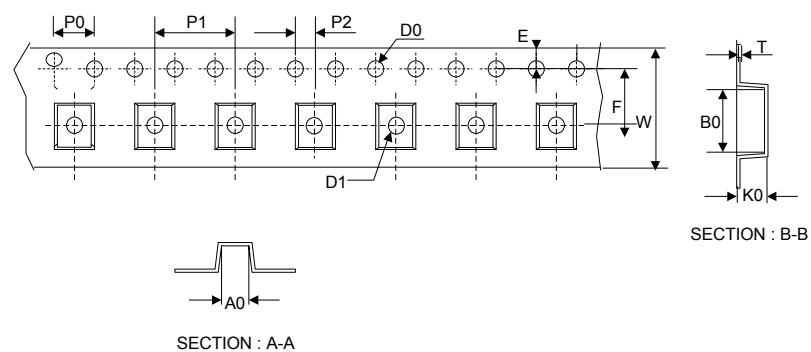
Dimensions in inches and (millimeters)



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

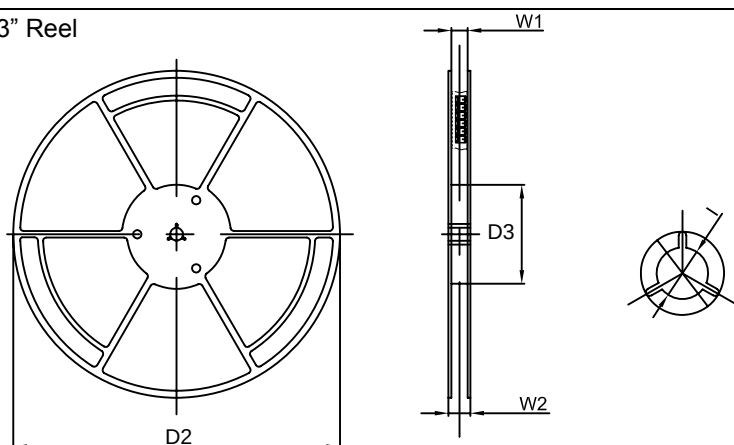
Tape & reel specification

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