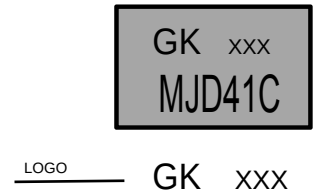
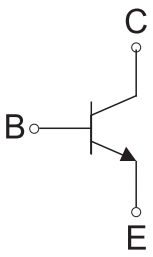
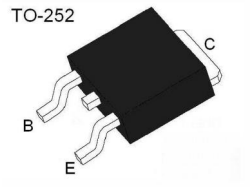
FEATURES

Designed for General Purpose Amplifier
Lead Formed for Surface Mount Applications in Plastic Sleeves (No Suffix)
Straight Lead Version in Plastic Sleeves ("–1" Suffix)
Lead Formed Version in 16 mm Tape and Reel ("T4" Suffix)
Electrically Similar to Popular TIP41 and TIP42 Series
Monolithic Construction With Built–in Base–Emitter Resistors



Equivalent Circuit





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

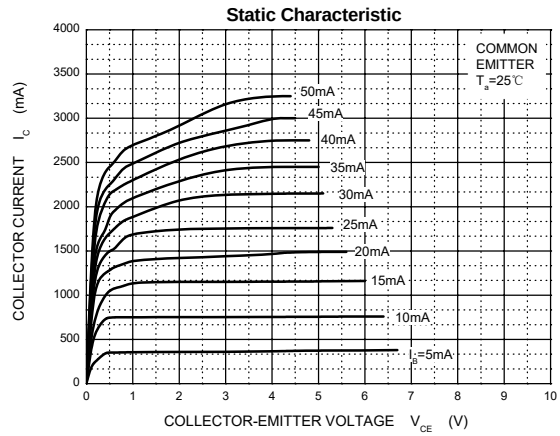
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	3	A
I_{CP}^*	Collector Current -Pluse	10	A
P_C	Collector Power Dissipation	1.25	W
T_J,T_{stg}	Operating Junction and Storage Temperature Range	-55-150	℃

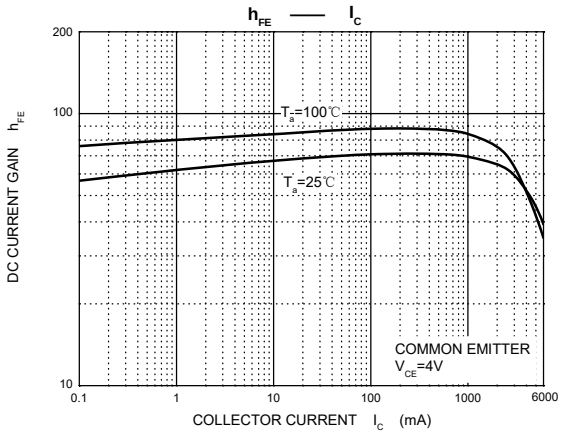
ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

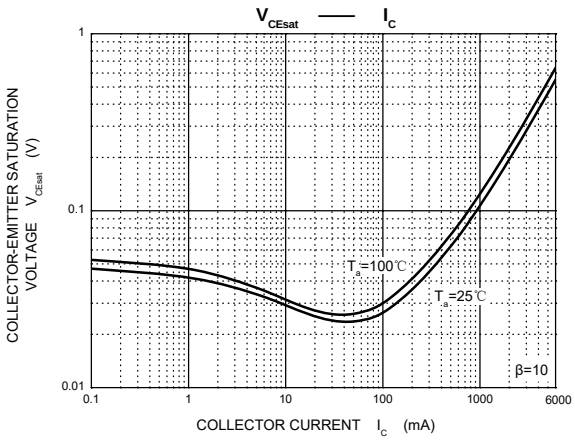
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C=30mA,I_B=0	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CEO}	V_{CB}=60V,I_E=0			50	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V I_C=0			0.5	mA
DC current gain	$h_{FE(1)}$	V_{CE}=4V I_C=0.3A	30			
	$h_{FE(2)}$	V_{CE}=4V,I_C=3A	15		75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=3A,I_B=0.6A			1.5	V
Base-emitter voltage	V_{BE}	V_{CE}=4V,I_C=6A			2	V
Transition frequency	f_T	V_{CE}=10V,I_C=500mA,f=1MHz	3			MHz

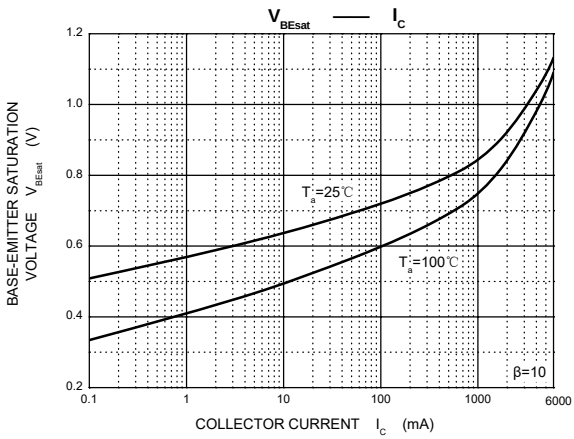
* Pulse Test: PW≤300μs, Duty Cycle≤2%

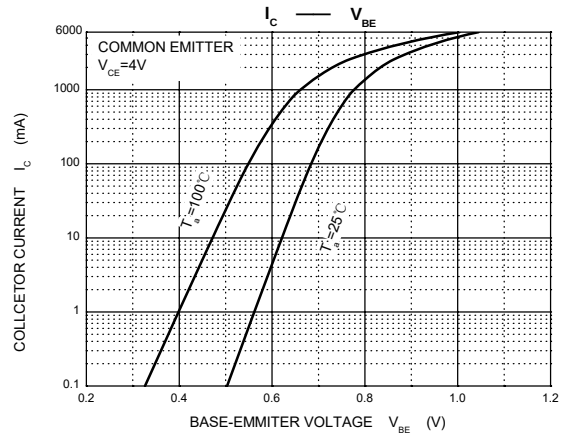
RATING AND CHARACTERISTIC CURVES

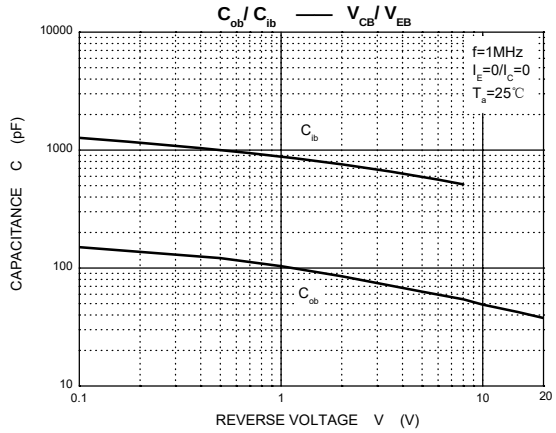


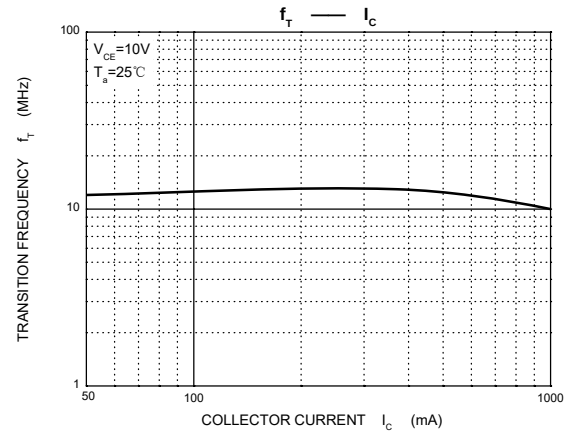


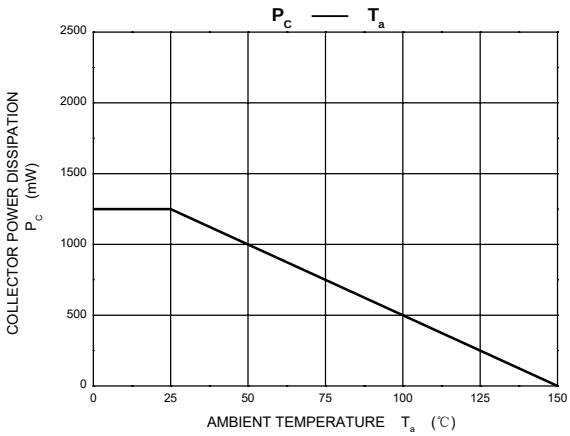








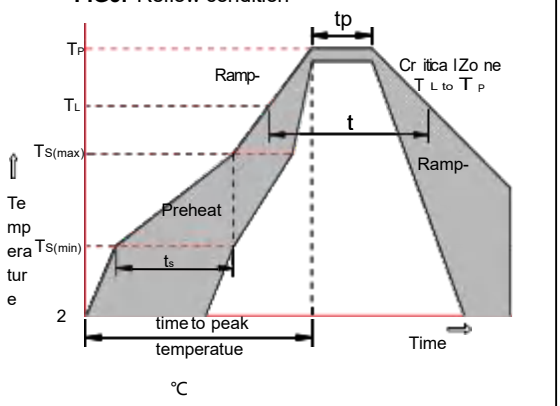




Soldering parameters

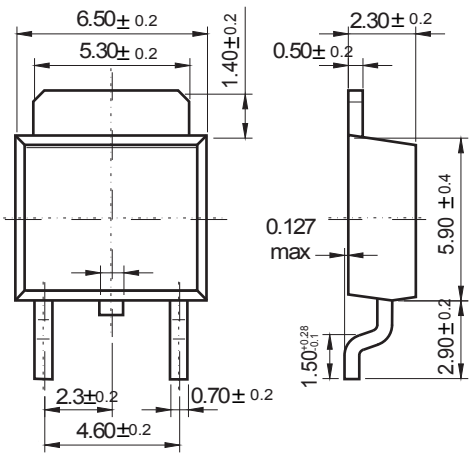
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid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

FIG5: Reflow condition

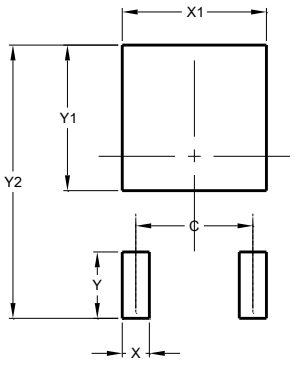


Package Dimensions & Suggested Pad Layout

TO-252



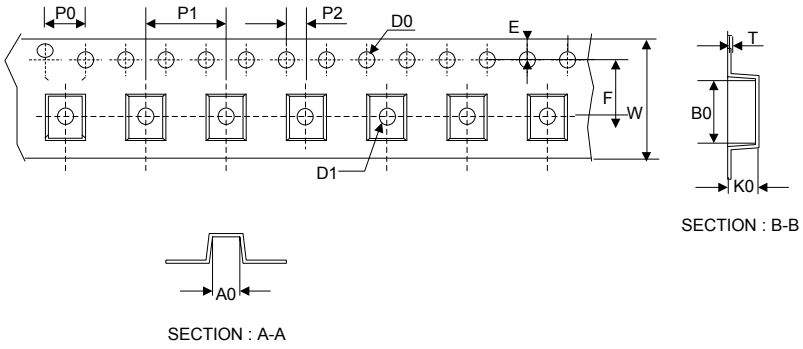
Dimensions in inches and (millimeters)



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

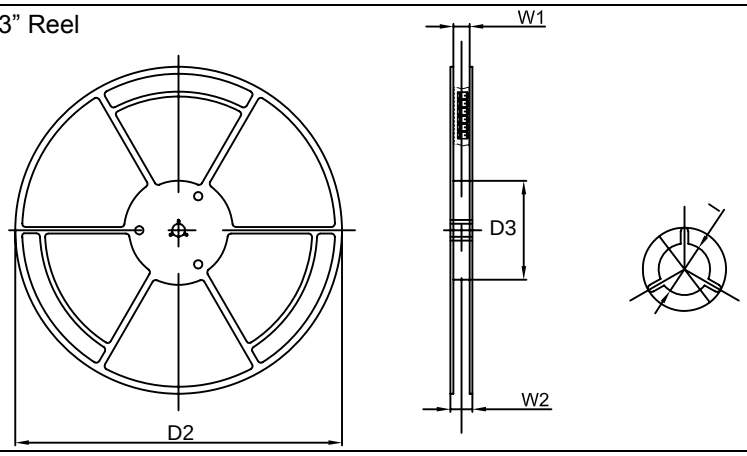
Tape & rell specification

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

13” Reel



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

Quantity: 2500PCS