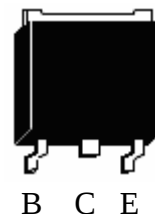


NPN Epitaxial Planar Transistor

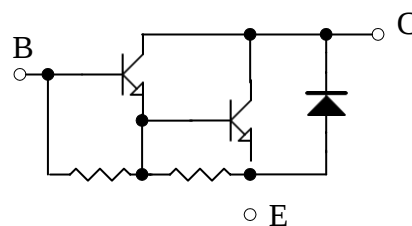
Description :

The KJD2195 is a NPN Darlington transistor, designed for use in general purpose amplifier and low speed switching application. RoHS compliant package process is adopted.

TO-252(DPAK)



BV_{CEO}	120V
I_C	4A
R_{CESAT}	600m Ω



B : Base
C : Collector
E : Emitter

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	130	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	4	A
Collector Current (Pulse)	I_{CP}	6 (Note)	A
Power Dissipation	$P_d(T_A=25^{\circ}C)$	1.5	W
	$P_d(T_C=25^{\circ}C)$	20	W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	83.3	$^{\circ}C/W$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	6.25	$^{\circ}C/W$
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

Note : Single Pulse $P_w \leq 350\mu s$, Duty $\leq 2\%$.

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CEO}	120	-	-	V	I _C =1mA, I _B =0
BV _{CBO}	130	-	-	V	I _C =100μA, I _E =0
I _{CBO}	-	-	1	mA	V _{CB} =100V, I _E =0
I _{CEO}	-	-	2	mA	V _{CE} =50V, I _E =0
I _{EBO}	-	-	2	mA	V _{EB} =5V, I _C =0
*V _{CE(sat)}	-	-	1.25	V	I _C =2A, I _B =8mA
*V _{CE(sat)}	-	-	1.5	V	I _C =2A, I _B =2mA
*V _{BE(on)}			2.2	V	V _{CE} =4V, I _C =2A
*h _{FE1}	600	-	-	-	V _{CE} =3V, I _C =1A
*h _{FE2}	1000	-	-	-	V _{CE} =3V, I _C =2A
*h _{FE3}	300	-	-	-	V _{CE} =3V, I _C =4A
C _{ob}	-		200	pF	V _{CB} =10V, I _E =0A, f=1MHz

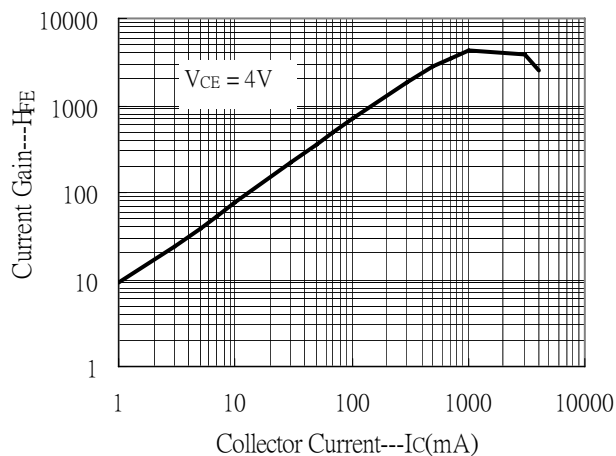
*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Ordering Information

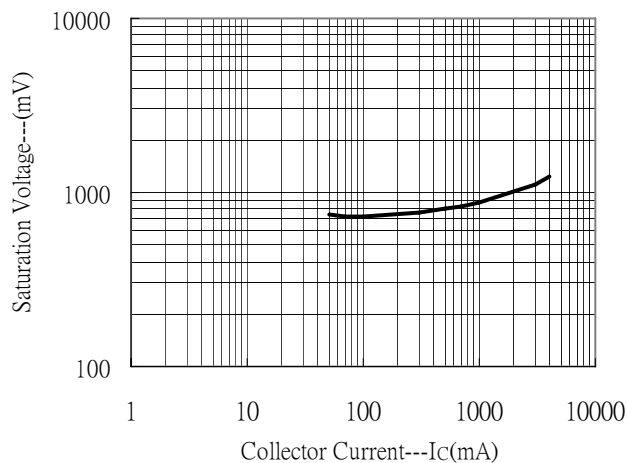
Device	Package	Shipping
KJD2195	TO-252 (Pb-free lead plating and halogen-free package)	2500 pcs / Tape & Reel

Typical Characteristics

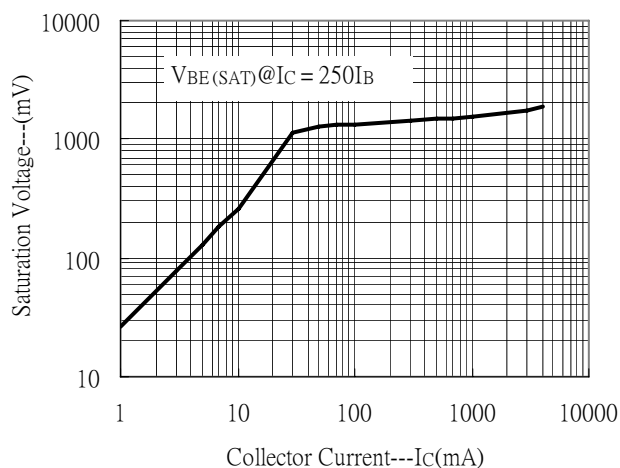
Current Gain vs Collector Current



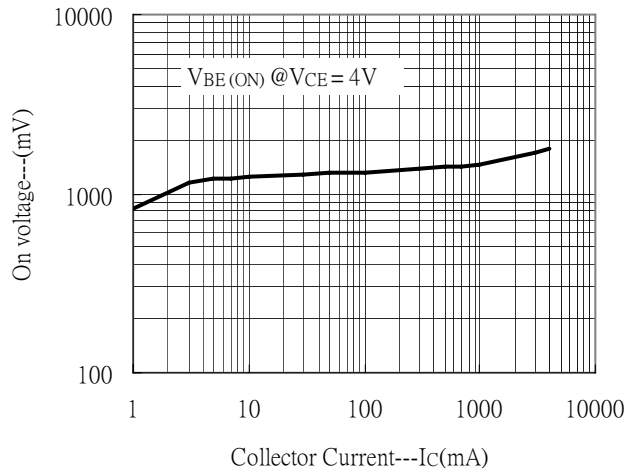
Saturation Voltage vs Collector Current



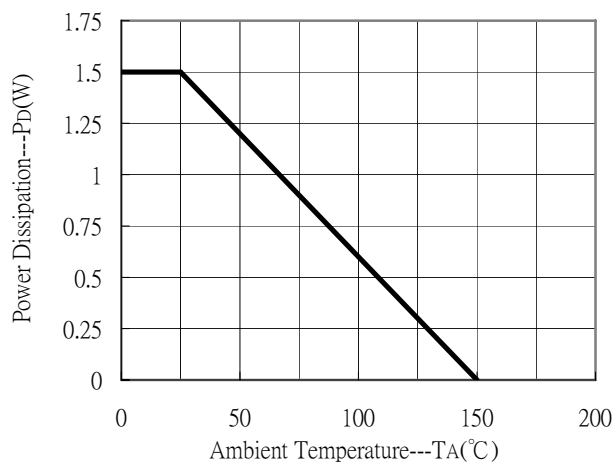
Saturation Voltage vs Collector Current



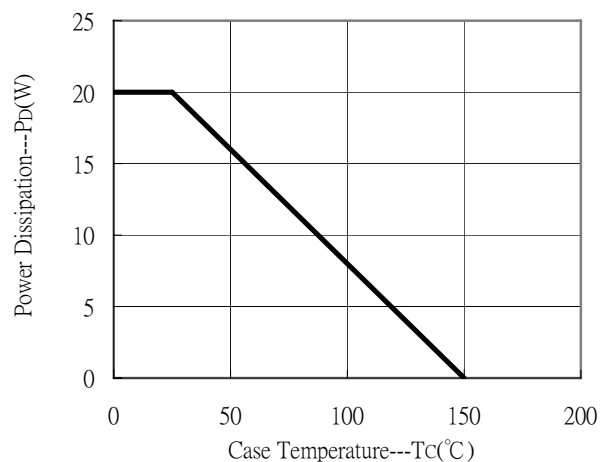
On voltage vs Collector Current



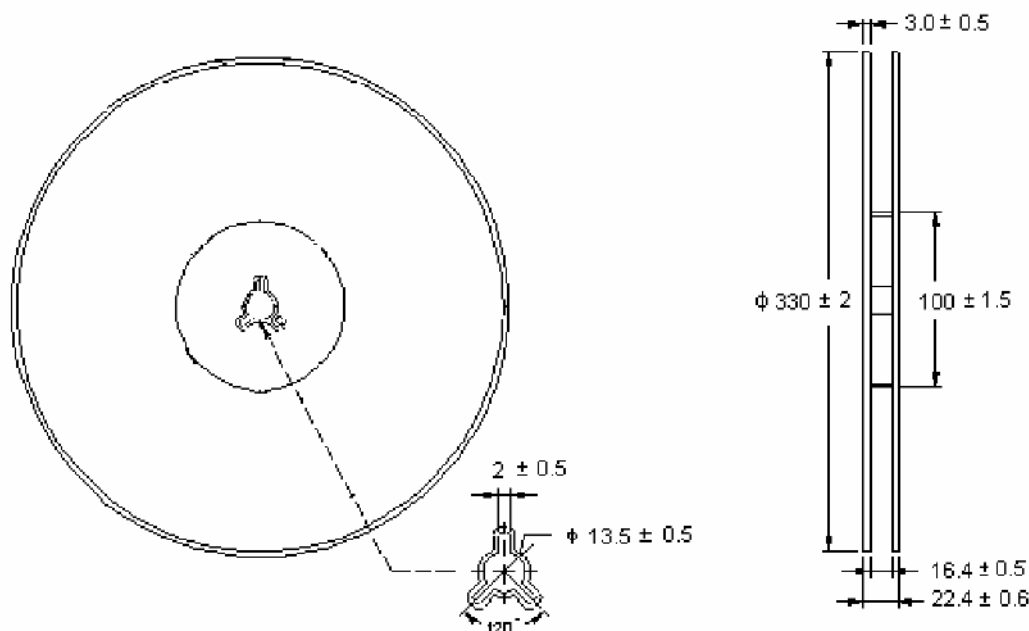
Power Derating Curve



Power Derating Curve

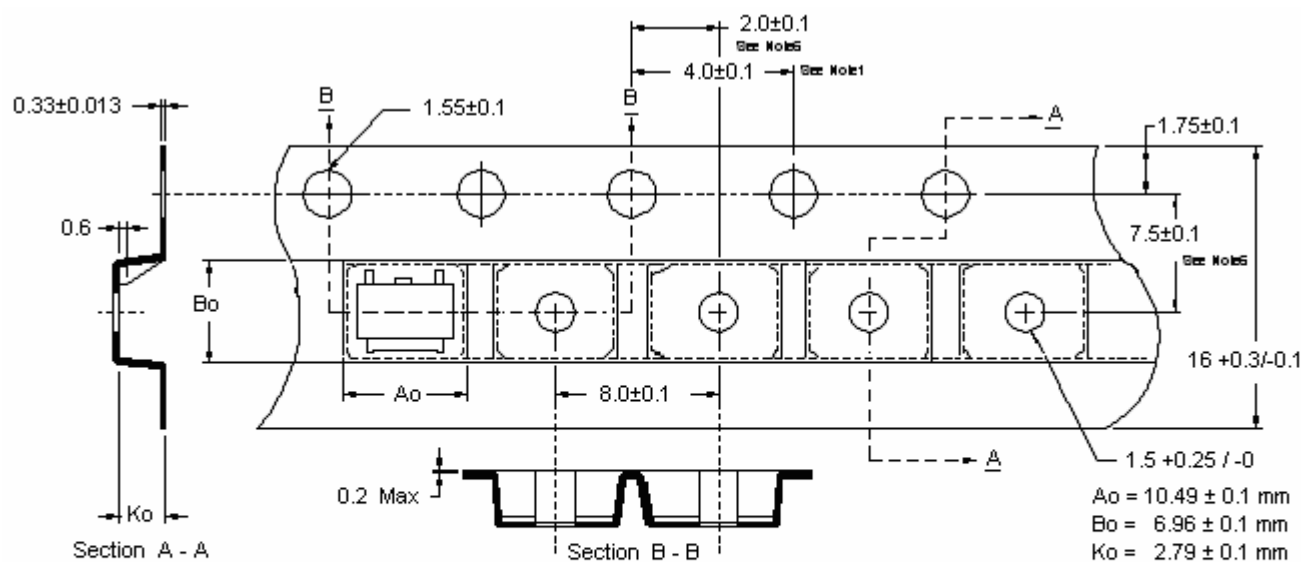


Reel Dimension



Unit: millimeter

Carrier Tape Dimension

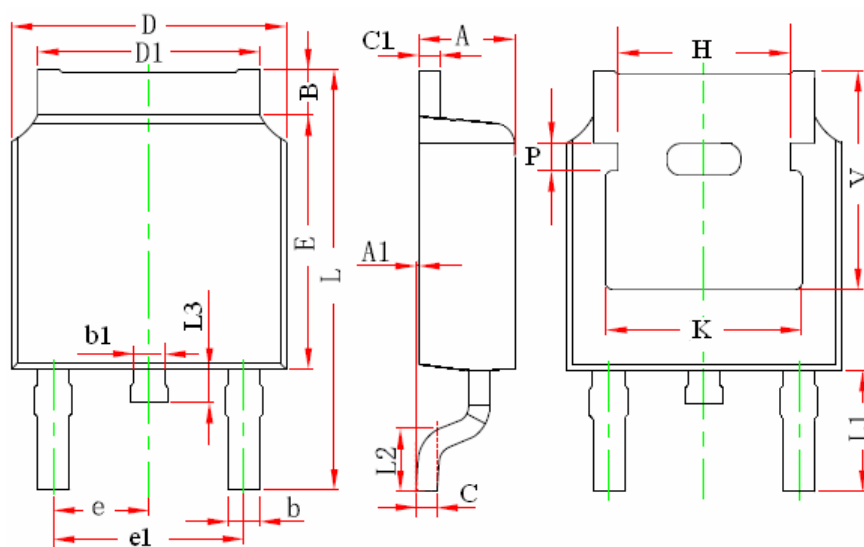


Notes:

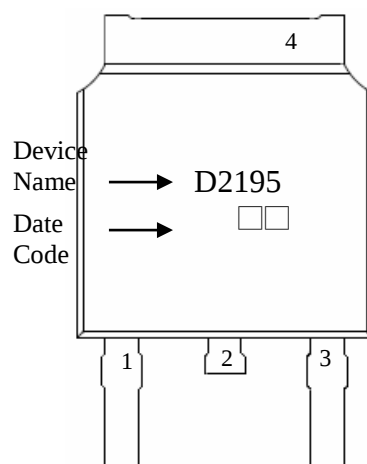
1. 10 sprocket hole pitch cumulative tolerance ± 0.2 .
2. Camber not to exceed 1mm in 100mm.
3. Material: Conductive black polystyrene.
4. A_o & B_o measured on a plane 0.3mm above the bottom of the pocket.
5. K_o measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
6. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

Unit : millimeter

TO-252 Dimension



Marking:



3-Lead TO-252 Plastic Surface Mount Package

Style: Pin 1.Base 2.Collector 3.Emitter
 4.Collector

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.087	0.094	2.200	2.400	e	0.086	0.094	2.186	2.386
A1	0.000	0.005	0.000	0.127	e1	0.172	0.188	4.372	4.772
B	0.039	0.048	0.990	1.210	H	0.163	REF	4.140	REF
b	0.026	0.034	0.660	0.860	K	0.190	REF	4.830	REF
b1	0.026	0.034	0.660	0.860	L	0.386	0.409	9.800	10.400
C	0.018	0.023	0.460	0.580	L1	0.114	REF	2.900	REF
C1	0.018	0.023	0.460	0.580	L2	0.055	0.067	1.400	1.700
D	0.256	0.264	6.500	6.700	L3	0.024	0.039	0.600	1.000
D1	0.201	0.215	5.100	5.460	P	0.026	REF	0.650	REF
E	0.236	0.244	6.000	6.200	V	0.211	REF	5.350	REF