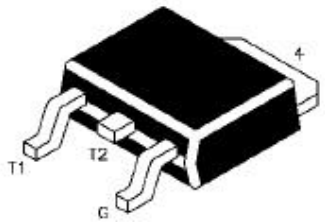
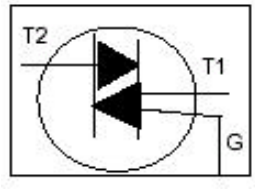
TRIAC

CJD136

DPAK (TO-252)
Plastic Package





For use in high bidirectional transient and blocking voltage applications, and for high thermal cycling performance. Typical Applications include Motor Control, Industrial and Domestic Lighting, Heating and Static Switching.

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	TEST CONDITION	VALUE	UNIT
Repetitive Peak Off State Voltage	*V_{DRM}		600	V
RMS on State Current	$I_{T\ (RMS)}$	full sine wave, $T_{mb} \leq 107^oC$	4.0	A
Non Repetitive Peak on State Current	I_{TSM}	full sine wave, $T_J=25^oC$ prior to t=20ms t=16.7ms	 25 27	 A A
I^2t for Fusing	I^2t	t=10ms	3.1	A^2s
Repetitive Rate of Rise of on State Current After Triggering	dI_T/dt	I_{TM}=6A, I_G=0.2A, dI_G/dt=0.2A/µs T2+ G+ T2+ G- T2- G- T2- G+	 50 50 50 10	 A/µs A/µs A/µs A/µs
Peak Gate Current	I_{GM}		2.0	A
Peak Gate Voltage	V_{GM}		5.0	V
Peak Gate Power	P_{GM}		5.0	W
Average Gate Power	$P_{G\ (AV)}$	Over any 20ms period	0.5	W
Storage Temperature	T_{stg}		- 40 to +150	^oC
Operating Junction Temperature	T_j		125	^oC

***The rate of rise of current should not excees 3A/ms**

THERMAL RESISTANCE

Junction to Mounting Base	$R_{th\ (j-mb)}$	full cycle half cycle	3.0 max 3.7 max	K/W K/W
Junction to Ambient (typical)	$R_{th\ (j-a)}$	in free air	60 typ	K/W

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

PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Gate Trigger Current	I_{GT}	V_D=12V, I_T=0.1A T2+ G+ T2+ G- T2- G- T2- G+	 	 35 35 35 70	 mA mA mA mA

MARKING	CDIL CJD136 MX XY
XY= Date Code	

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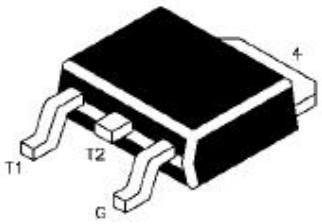
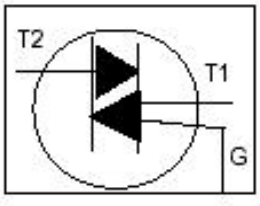




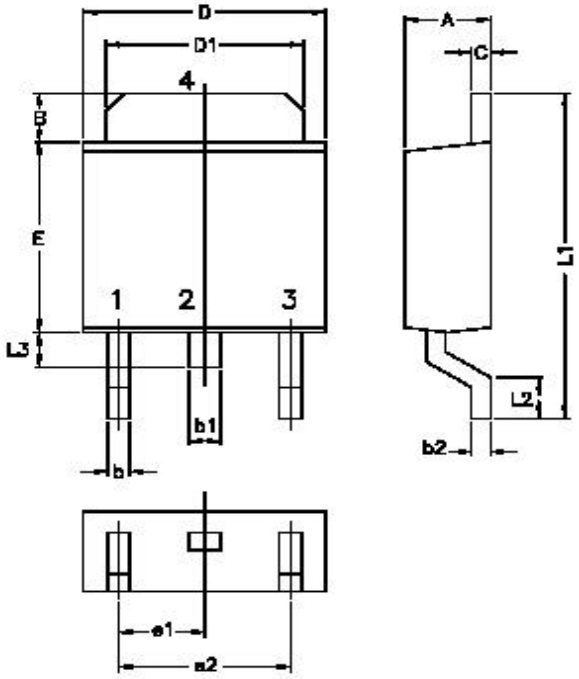
ELECTRICAL CHARACTERISTICS (T_J=25ºC unless specified otherwise)

PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Latching Current	I_L	V_D=12V, I_{GT}=0.1A			
		T2+ G+		20	mA
		T2+ G-		30	mA
		T2- G-		20	mA
		T2- G+		30	mA
Holding Current	I_H	V_D=12V, I_{GT}=0.1A		15	mA
On State Voltage	V_T	I_T=5A		1.7	V
Gate Trigger Voltage	V_{GT}	V_D=12V, I_T=0.1A		1.5	V
		V_D=400V, I_T=0.1A,T_J=125ºC	0.25		V
Off State Leakage Current	I_D	V_D=max, V_{DRM}=max, T_J=125ºC		0.5	mA

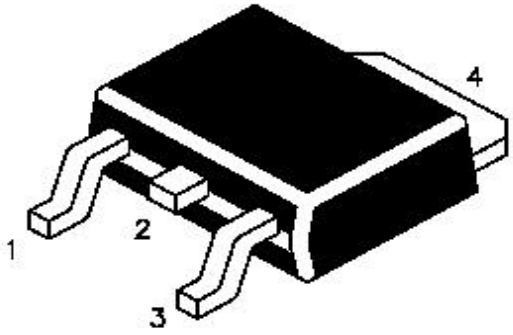
DYNAMIC CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Critical Rate of Rise of off State Voltage	d_{VD}/dt	V_{DM}=67% V_{DRM}=max, T_J=125ºC, exponential waveform, gate open circuit	100			V/µs
Critical Rate of Change of Commutating Voltage	dV_{com}/dt	V_{DM}=400V, T_J=95ºC, $I_{T(RMS)}$=4A, $d/_{com}/dt$=1.8A/ms, gate open circuit		50		V/µs
Gate Controlled turn on time	t_{gt}	I_{TM}=6A, V_D=V_{DRM} max, I_G=0.1A, dI_G/dt=5A/µs		2.0		µs

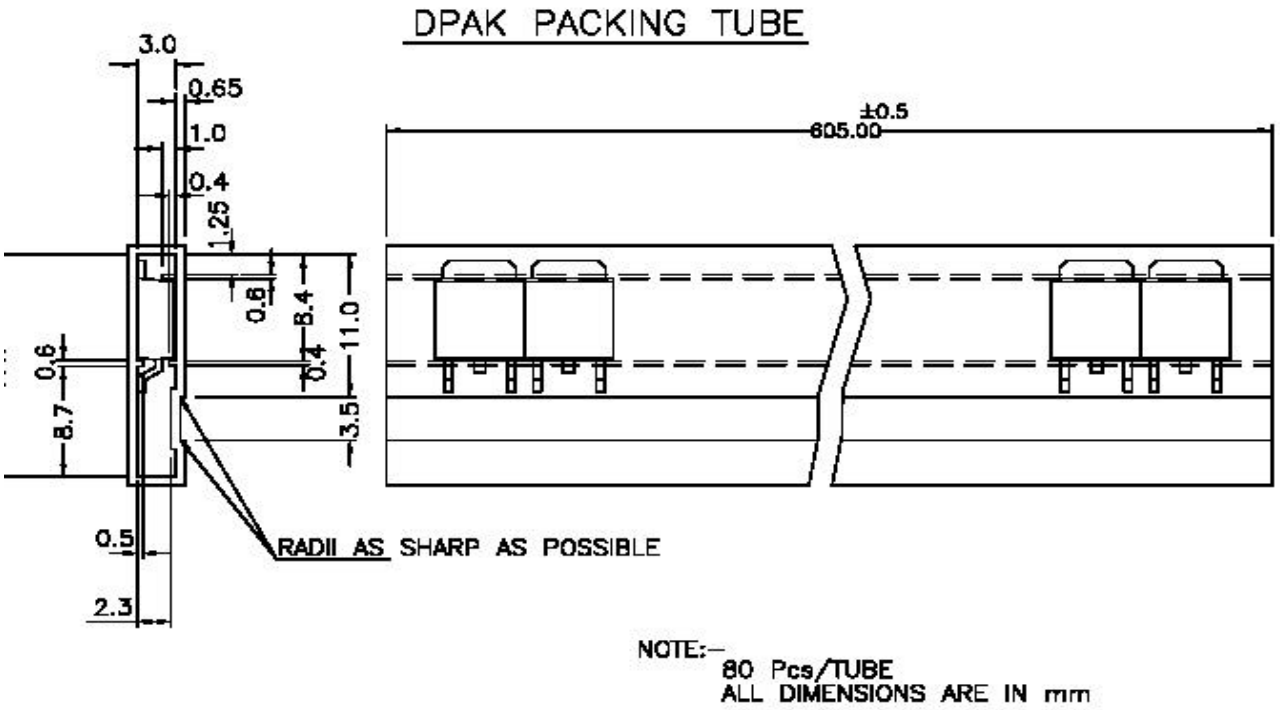
CJD136Rev171104E



DIM	MIN.	MAX.
A	2.20	2.40
B	1.30	1.50
b	0.55	0.65
b1	0.75	0.85
b2	0.46	0.58
C	0.46	0.58
D	6.40	6.60
D1	5.20	5.40
E	5.40	5.60
e1	2.25	2.35
e2	4.50	4.70
L1	9.25	9.75
L2	0.5	–
L3	0.90	1.10

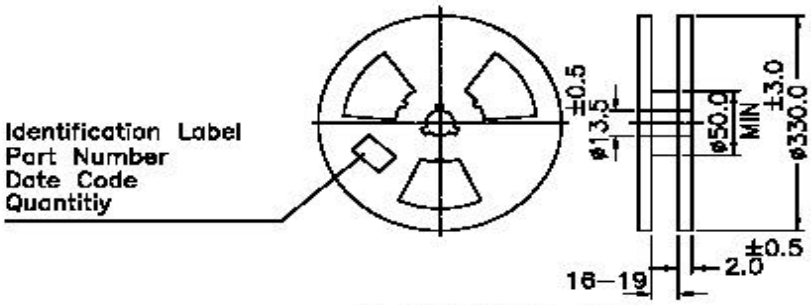


PIN CONFIGURATION
1. T1 MAIN TERMINAL 1
2. T2 MAIN TERMINAL 2
3. G GATE
4. FIN (T2)



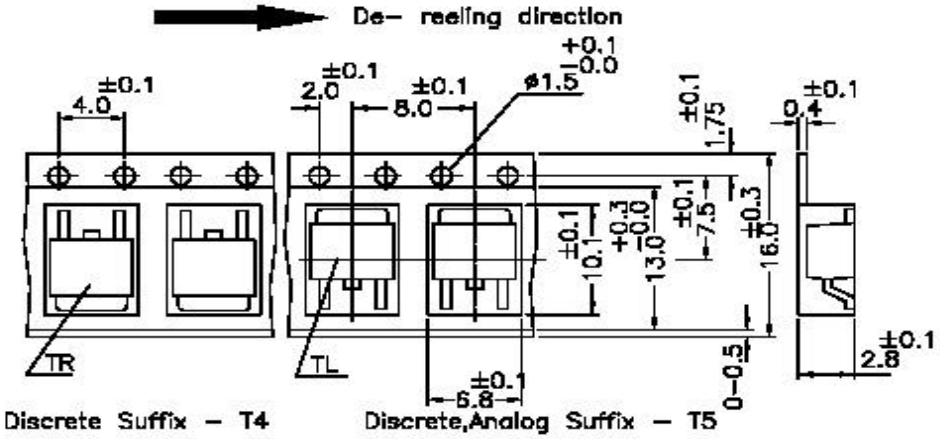
CJD136Rev171104E

DPAK TAPE & REEL SPECIFICATION



ALL DIMENSIONS ARE IN mm
REEL ø 330 mm (13")
No of Device 2500

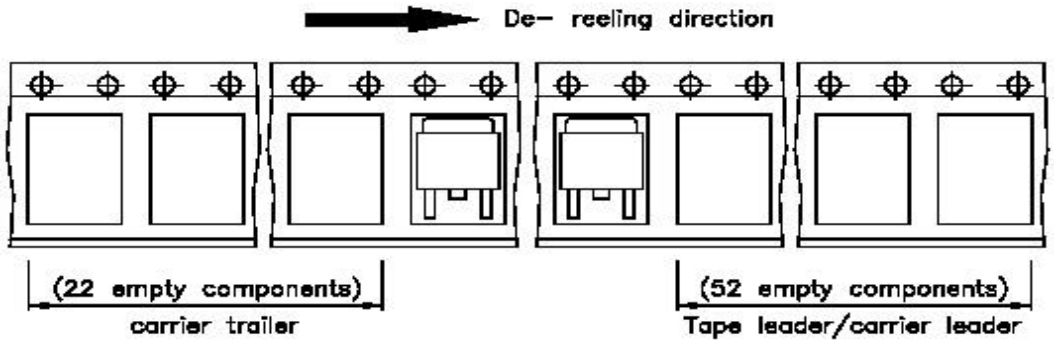
TAPE & REEL



Discrete Suffix – T4
Analog Suffix – RK

Discrete,Analog Suffix – T5

Notes:–
A maximum of three consecutive components may be missing. Provided this gap is followed by six consecutive components.



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Disclaimer

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Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com