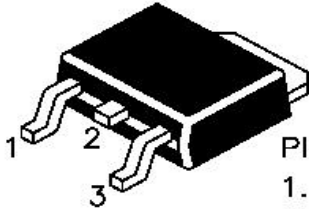


COMPLEMENTARY DARLINGTON PLASTIC POWER TRANSISTORS

MJD122 NPN
MJD127 PNP

DPAK (TO-252)
Plastic Package



PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

Designed for General Purpose Amplifier and Low Speed Switching Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	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 Continuous	I_C	8	A
Collector Current Peak	I_C	16	A
Base Current	I_B	120	mA
Total Power Dissipation $T_c=25^\circ\text{C}$ Derate Above 25°C	P_D	20 0.16	W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Junction to Case	$R_{th(j-c)}$	6.25	$^\circ\text{C/W}$
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ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage	V_{CEO}	$I_C=30\text{mA}, I_B=0$	100			V
Collector Cut Off Current	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$			10	μA
Collector Cut Off Current	I_{CBO}	$V_{CB}=100\text{V}, I_E=0$			10	μA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			2	mA
DC Current Gain	h_{FE}	$I_C=4\text{A}, V_{CE}=4\text{V}$ $I_C=8\text{A}, V_{CE}=4\text{V}$	1000 100		12000	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=16\text{mA}$ $I_C=8\text{A}, I_B=80\text{mA}$			2 4	V
Base Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=8\text{A}, I_B=80\text{mA}$			4.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=4\text{A}, V_{CE}=4\text{V}$			2.8	V

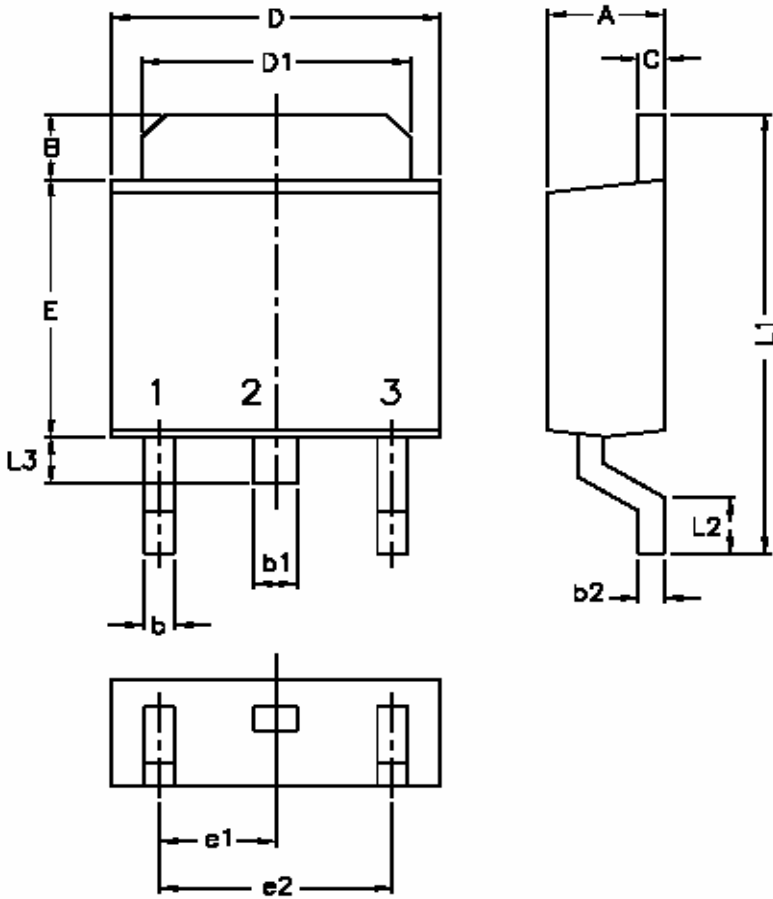
DYNAMIC CHARACTERISTICS

Current Gain Bandwidth product	$ h_{fe} $	$V_{CE}=4\text{V}, I_C=3\text{A}, f=1\text{MHz}$	4			MHz
Output Capacitance	C_{ob}	$I_E=0, V_{CB}=10\text{V}, f=0.1\text{MHz}$ MJD127 MJD122			300 200	pF pF
Small Signal Current Gain	h_{fe}	$I_C=3\text{A}, V_{CE}=4\text{V}, f=1\text{kHz}$	300			

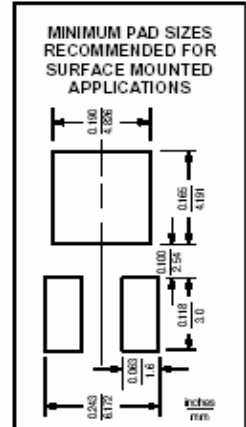
*Pulse test: Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$

MJD122_127 Rev290704E

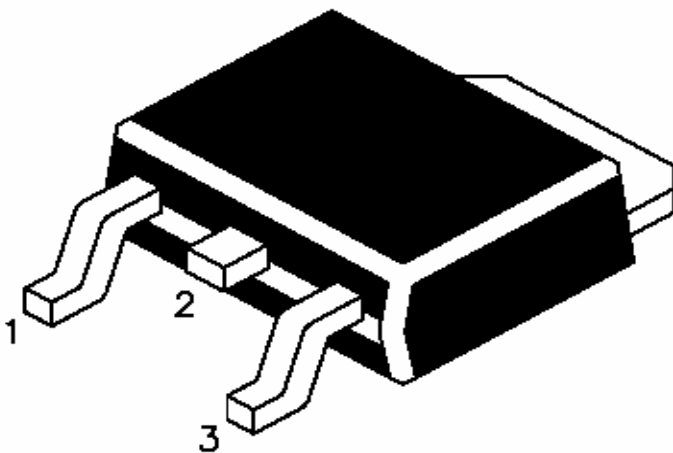
PACKAGE DPAK



DIM	MIN.	MAX.
A	2.18	2.43
B	0.889	1.50
b	0.550	0.889
b1	0.75	0.85
b2	0.46	0.56
C	0.46	0.56
D	6.35	6.75
D1	4.95	5.46
E	5.40	6.22
e1	2.25	2.35
e2	4.50	4.70
L1	9.25	9.75
L2	0.5	—
L3	0.90	1.10



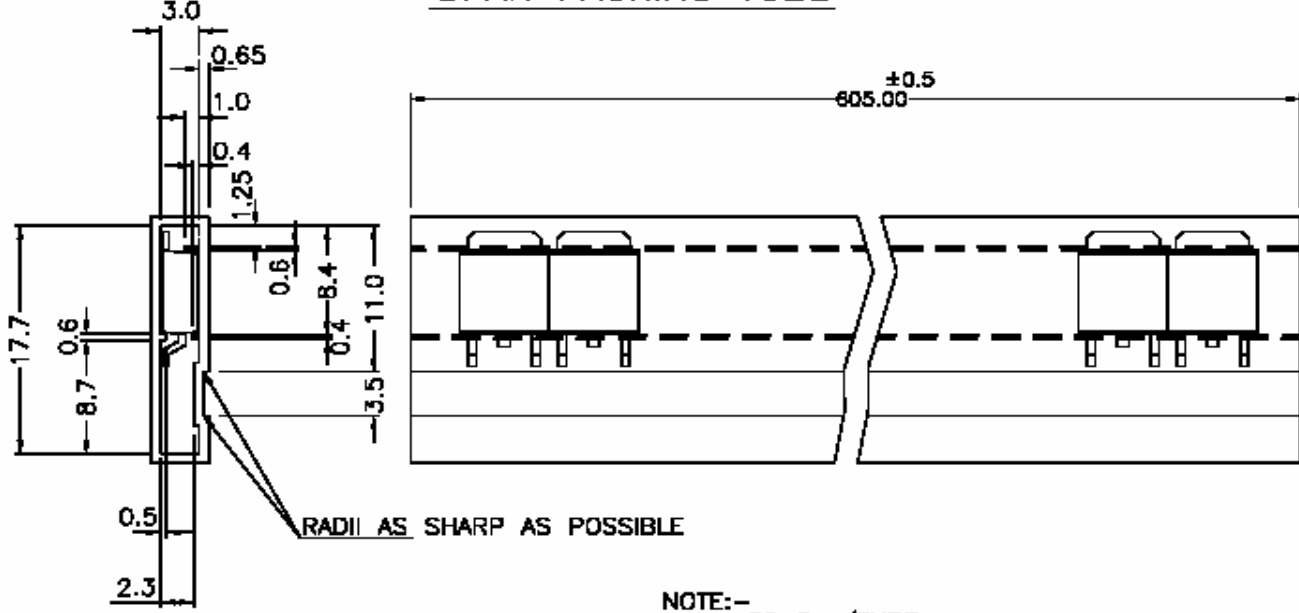
ALL DIMENSIONS ARE IN mm



PIN CONFIGURATION

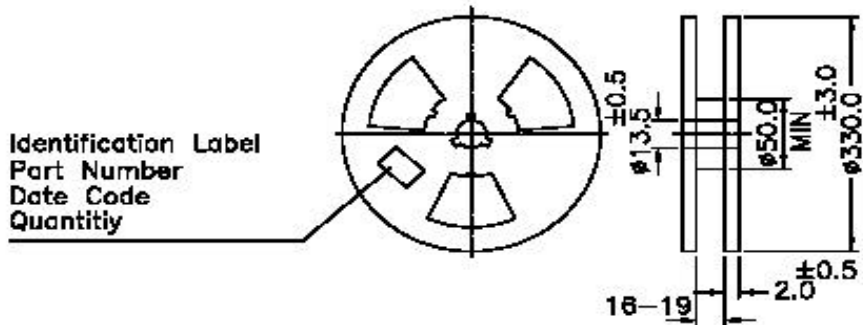
1. BASE
2. COLLECTOR
3. EMITTER

DPAK PACKING TUBE



NOTE:-
80 Pcs/TUBE
2.5 K/REEL
ALL DIMENSIONS ARE IN mm

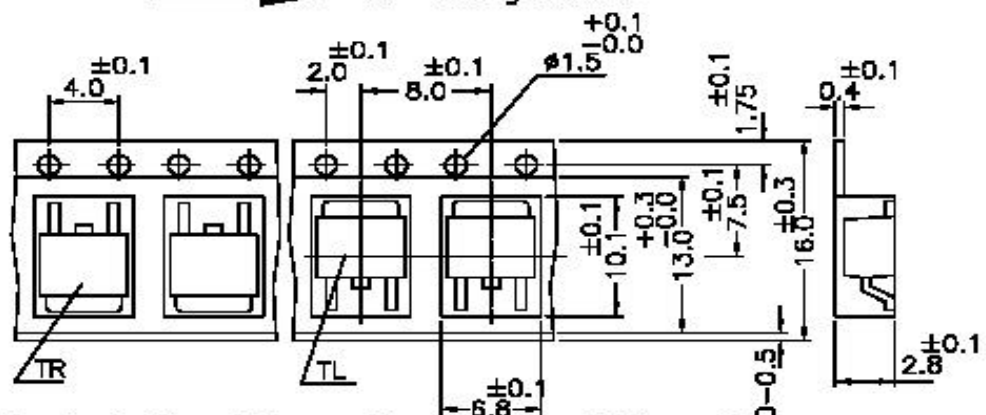
DPAK TAPE & REEL SPECIFICATION



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

TAPE & REEL

De-reeling direction



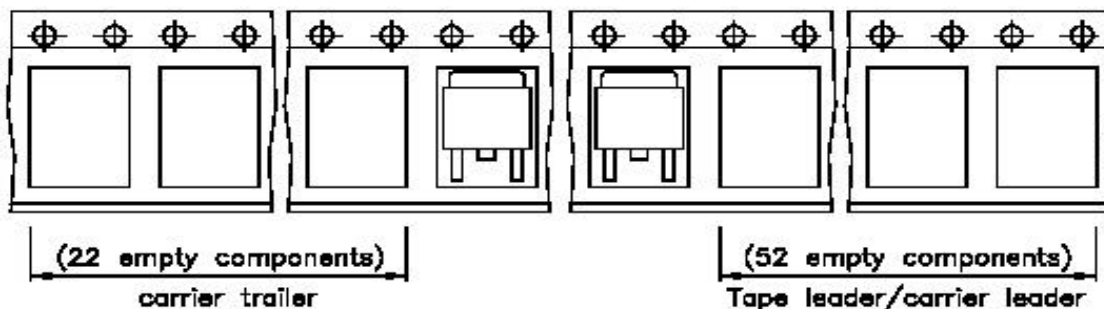
Discrete Suffix - T4
Analog Suffix - RK

Discrete, Analog Suffix - T5

Notes:-

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

De-reeling direction



Disclaimer

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