Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

NEW PRODUCT

Lead-free Green

MJD340

HIGH VOLTAGE NPN SURFACE MOUNT TRANSISTOR

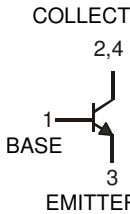
Features

- Epitaxial Planar Die Construction
- High Collector-EmitterVoltage
- Ideally Suited for Automated Assembly Processes
- Ideal for Power Switching or Amplification Applications
- **Lead Free By Design/RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**

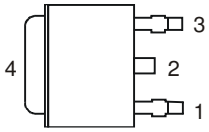
Mechanical Data

- Case: DPAK
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Finish — Matte Tin annealed over Copper Leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 4
- Ordering Information: See Page 4
- Weight: 0.34 grams (approximate)

Top View



Device Schematic



Pin Out Configuration

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	3	V
Continuous Collector Current	I_C	0.5	A
Peak Pulse Collector Current	I_{CM}	0.75	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation @T_C = 25°C	P_D	15	W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	8.33	°C/W
Power Dissipation @T_A = 25°C (Note 3)	P_D	1.56	W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	80	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Collector-Emitter Sustaining Voltage	$V_{(SUS)CEO}$	300	—	—	V	I_C = 1mA, I_B = 0
Collector Cutoff Current	I_{CBO}	—	—	100	μA	V_{CB} = 300V, I_E = 0
Emitter Cutoff Current	I_{EBO}	—	—	100	μA	V_{EB} = 3V, I_C = 0
ON CHARACTERISTICS (Note 4)						
DC Current Gain	h_{FE}	30	—	240	—	V_{CE} = 10V, I_C = 50mA

Notes:
1. No purposefully added lead.
2. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
3. Device mounted on FR-4 PCB with minimum recommended pad layout.
4. Measured under pulsed conditions. Pulse width = 300μs. Duty cycle ≤2%.

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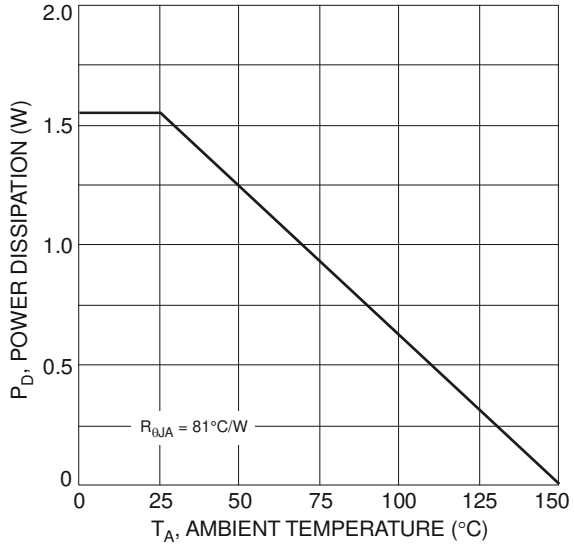


Fig. 1 Power Dissipation
vs. Ambient Temperature (Note 3)

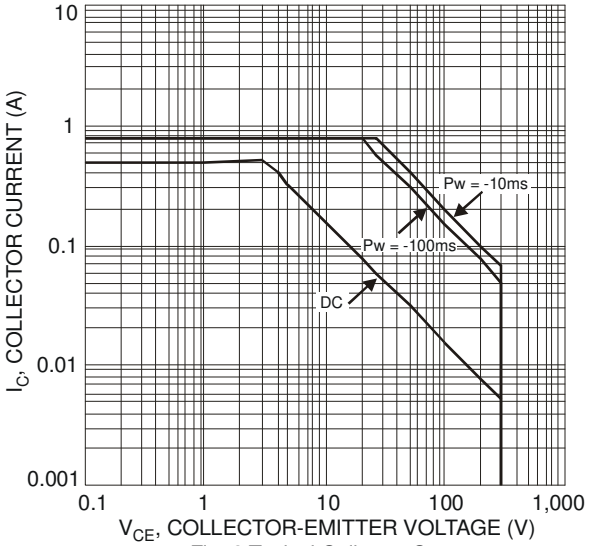


Fig. 2 Typical Collector Current
vs. Collector-Emitter Voltage (Note 3)

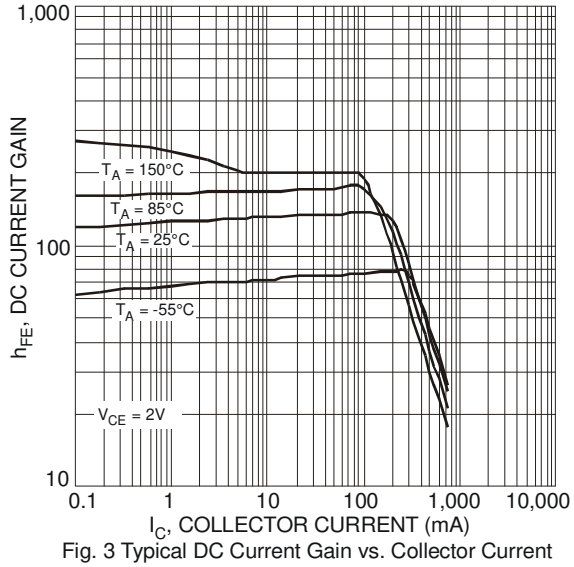


Fig. 3 Typical DC Current Gain vs. Collector Current

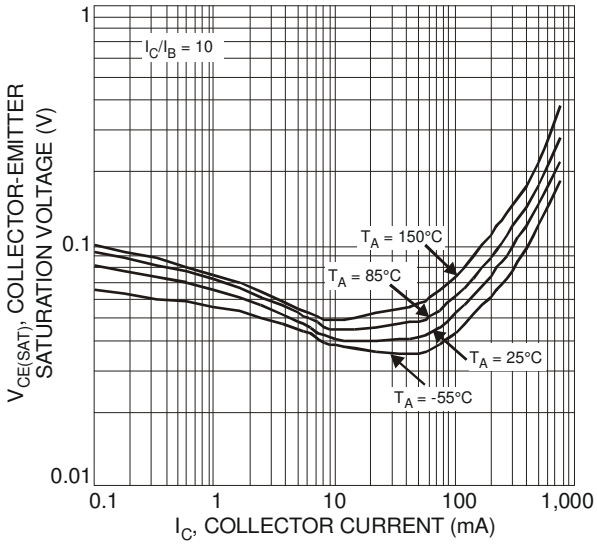


Fig. 4 Typical Collector-Emitter Saturation Voltage
vs. Collector Current

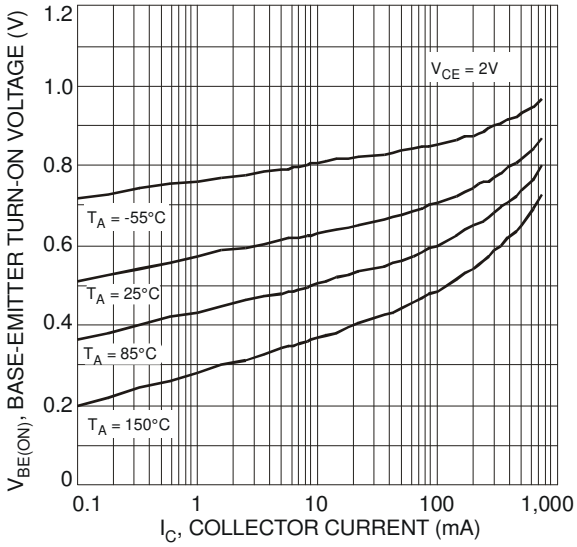


Fig. 5 Typical Base-Emitter Turn-On Voltage
vs. Collector Current

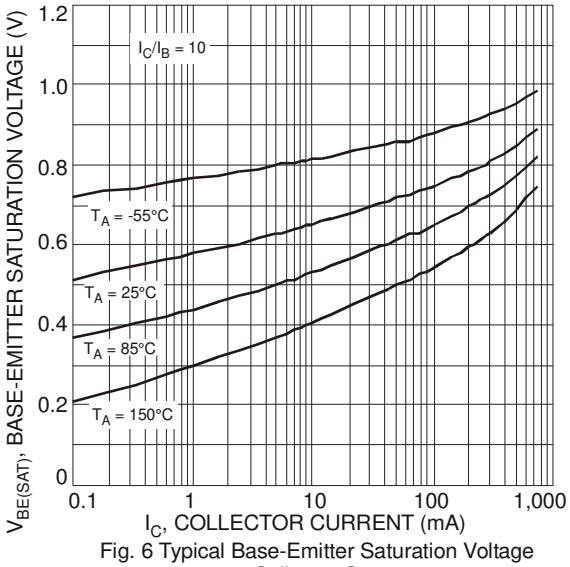


Fig. 6 Typical Base-Emitter Saturation Voltage
vs. Collector Current

NEW PRODUCT

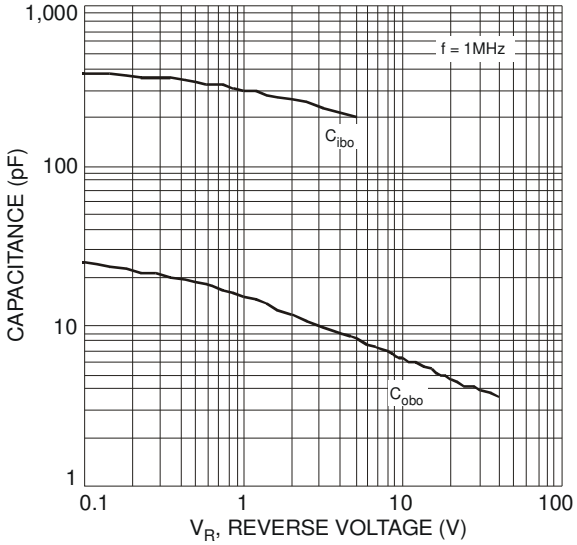


Fig. 7 Typical Capacitance Characteristics

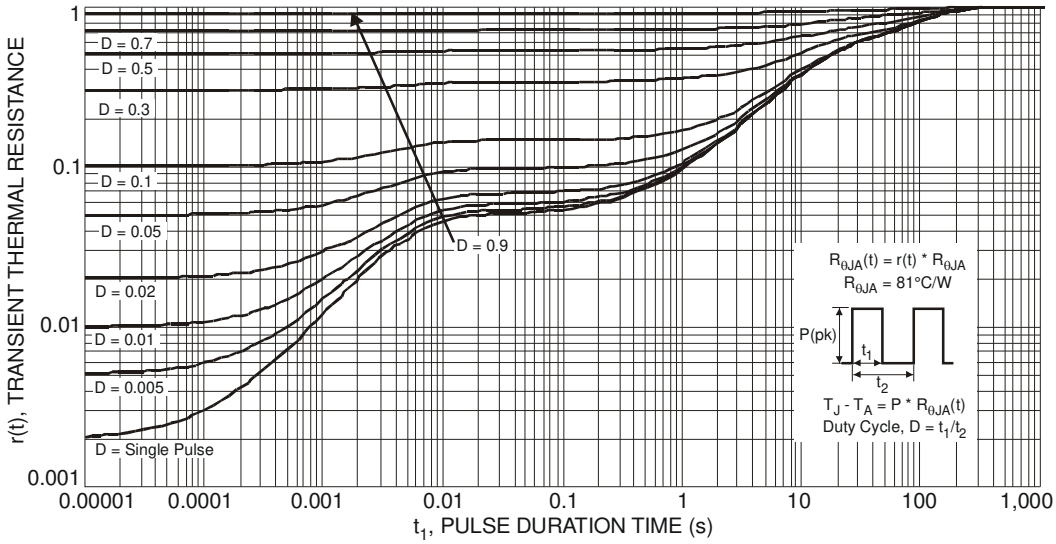


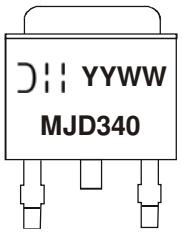
Fig. 8 Transient Thermal Response (Note 3)

Ordering Information (Note 5)

Part Number	Case	Packaging
MJD340-13	DPAK	2500/Tape & Reel

Notes: 5. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

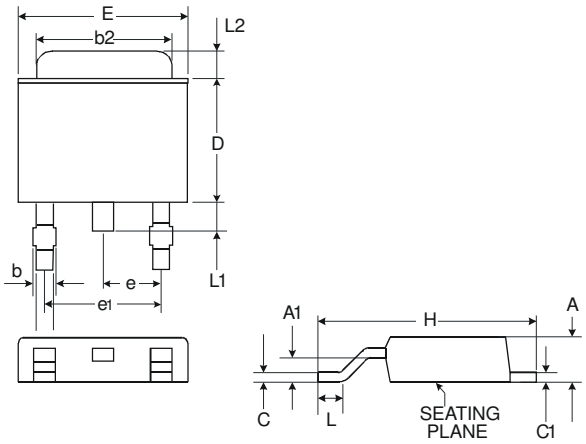
Marking Information



MJD340 = Product Type Marking Code
= Manufacturers' code marking
YYWW = Date Code Marking
YY = Last Digit of Year (ex: 08 = 2008)
WW = Week Code 01-52

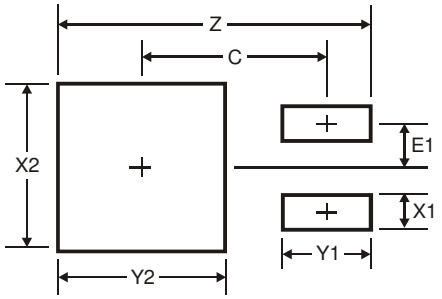
NEW PRODUCT

Package Outline Dimensions



DPAK		
Dim	**Min**	**Max**
A	2.18	2.40
A1	0.89	1.14
b	0.61 Typ	
b2	5.20	5.50
C	0.45	0.58
C1	0.45	0.58
D	5.40	6.20
E	6.35	6.80
e	2.28 Typ	
e1	4.57 Typ	
H	9.00	10.40
L	0.51	—
L1	0.64	1.02
L2	0.88	1.27
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	11.6
X1	1.5
X2	7.0
Y1	2.5
Y2	7.0
C	6.9
E1	2.3