SMD Power Transistor (PNP)

Features

- Designed for general purpose amplifier and low speed switching applications
- RoHS compliance

D-PACK (TO-252)

RoHS Compliant

Mechanical Data

Case:	D-PACK(TO-252), Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	0.3 grams

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	MJD32C	Unit
	Marking Code	MJD32C	
V_{CEO}	Collector-Emitter Voltage	100	V
V_{CBO}	Collector-Base Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current Continuous	3	A
I_{CP}	Collector Current Peak	5	A
I_B	Base Current	1	A
P_D	Power Dissipation at T_C=25°C	15	W
	Derate above 25°C	0.12	W/°C
*P_D	Power Dissipation at T_A=25°C	1.56	W
	Derate above 25°C	0.012	W/°C
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-65 to +150	°C

Thermal Characteristics

Symbol	Description	MJD32C	Unit
R_{thJC}	Thermal Resistance from Junction to Case	8.3	°C/W
*R_{thJA}	Thermal Resistance from Junction to Ambient	80	°C/W
T_L	Lead Temperature for Soldering	260	°C

Note: *These ratings are applicable when surface mounted on the minimum pad sizes recommended.

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Off Characteristics

Symbol	Description	Min.	Max.	Unit	Conditions
V_{CEO}	Collector Emitter Voltage	100	-	V	I_C=1mA, I_B=0
I_{CEO}	Collector Cut-off Current	-	50	µA	V_{CE}=60V, I_B=0
I_{CES}	Collector Cut-off Current	-	20	µA	V_{CE}=Rated V_{CEO}, V_{EB}=0
I_{EBO}	Emitter Cut-off Current	-	1	mA	V_{EB}=5V, I_C=0

On Characteristics (**)

Symbol	Description	Min.	Max.	Unit	Conditions
$V_{CE(sat)}$	Collector Emitter Saturation Voltage	-	1.2	V	I_C=3A, I_B=0.375A
$V_{BE(on)}$	Base Emitter on Voltage	-	1.8	V	V_{CE}=4V, I_C=3A
h_{FE}	D.C. Current Gain	25	-		V_{CE}=4V, I_C=1A
		10	50		V_{CE}=4V, I_C=3A

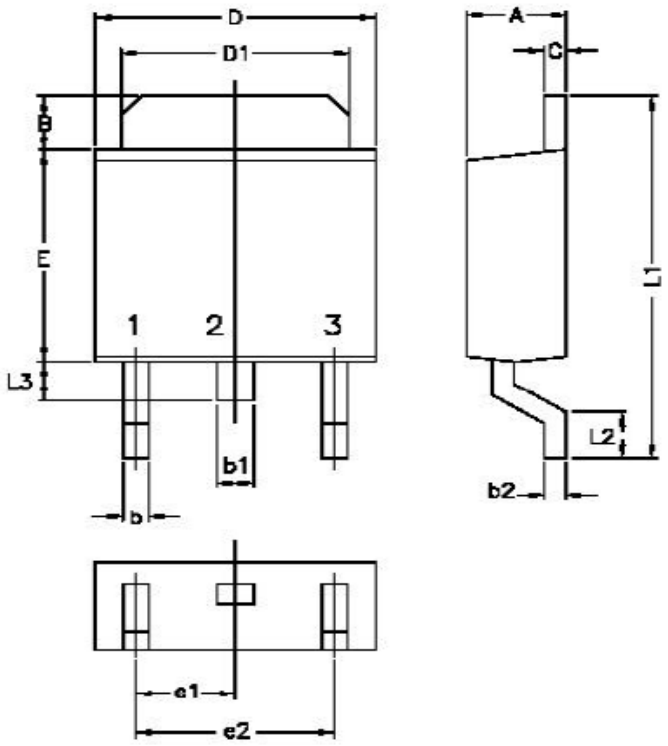
Dynamic Characteristics

Symbol	Description	Min.	Typ.	Unit	Conditions
***f_T	Current Gain Bandwidth Product	3	-	MHz	V_{CE}=10V, I_C=500mA, f=1MHz
h_{fe}	Small Signal Current Gain	20	-		V_{CE}=10V, I_C=500mA, f=1KHz

Note: ** Pulse Test: Pulse Width≤300µs, Duty Cycle≤2%.

*** $f_T=|h_{fe}|.f_{test}$

Dimensions in mm



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	0.56
C	0.46	0.56
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. BASE
2. COLLECTOR
3. EMITTER

D-PACK
(TO-252)

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