

**Features**

- Halogen Free ."Green"Device<sup>(Note 1)</sup>
- AEC-Q101 Qualified
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings @ 25°C Unless Otherwise Specified**

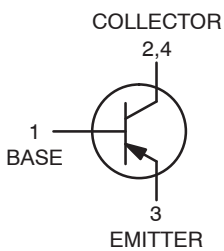
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	-100	V
Collector-Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Continuous Collector Current	$I_C$	-6	A
Power Dissipation@ $T_A=25^\circ\text{C}$	$P_D$	1.25	W
Power Dissipation@ $T_C=25^\circ\text{C}$	$P_D$	15	W

**Thermal characteristics**

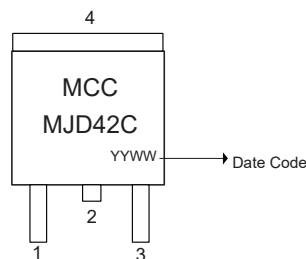
Parameter	Symbol	Rating	Unit
Junction Temperature Range	$T_J$	-55~+150	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°C
Thermal Resistance from Junction to Ambient	$R_{th(J-A)}$	100	°C/W
Thermal Resistance from Junction to Case	$R_{th(J-C)}$	8.3	°C/W

Note:  
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**

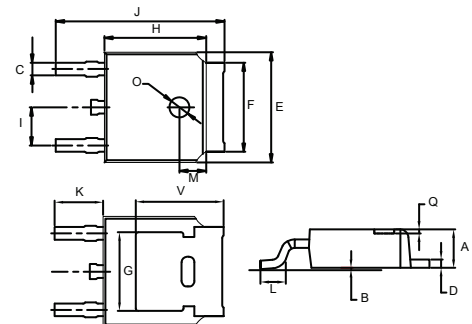


**Marking Code:**



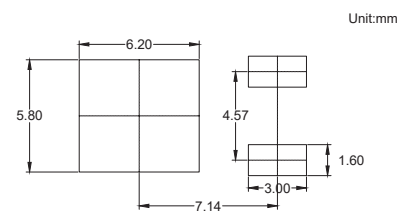
**PNP Power Transistors**

**DPAK(TO-252)**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		TYP.
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		TYP.
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		TYP.
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		TYP.

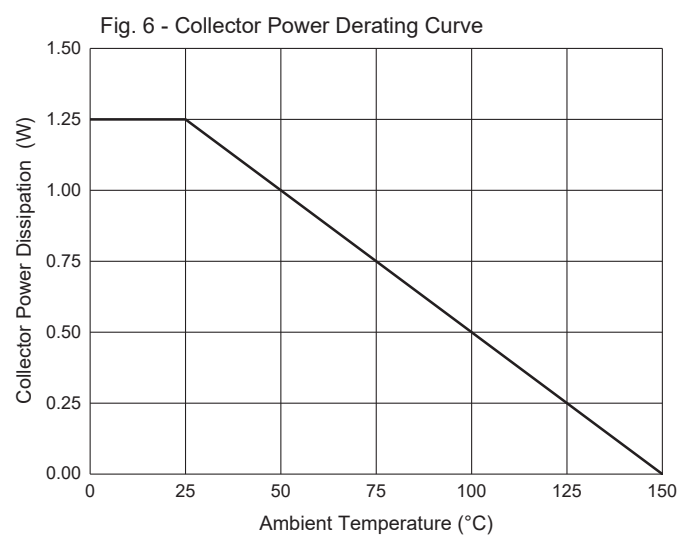
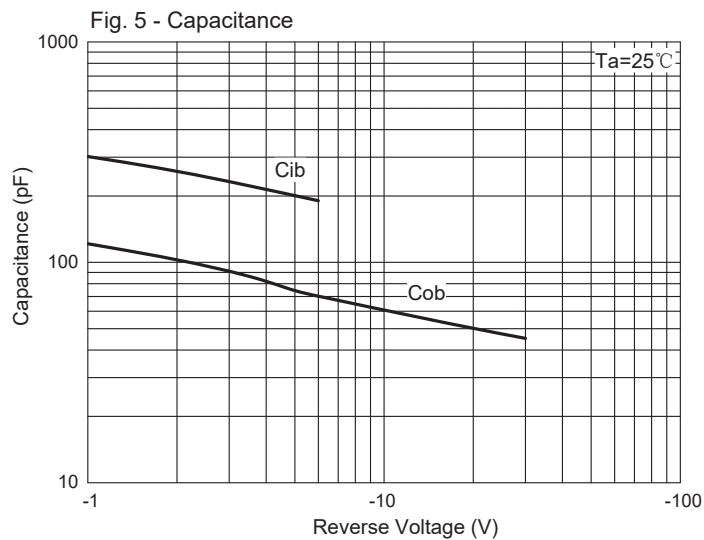
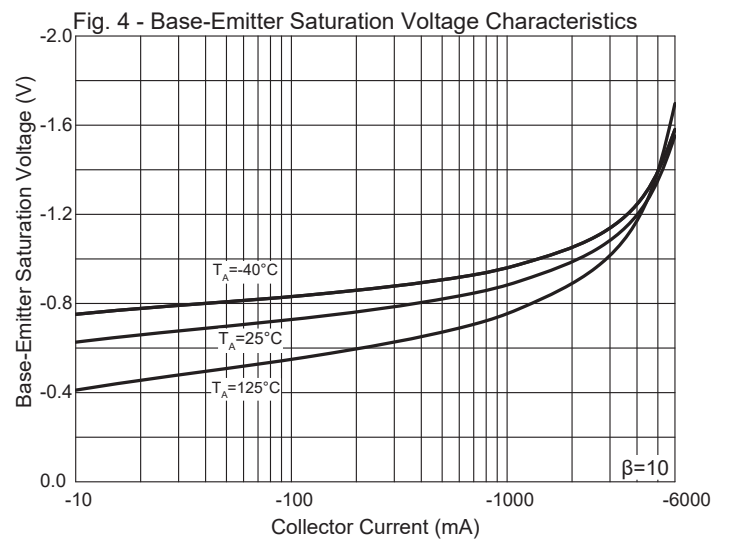
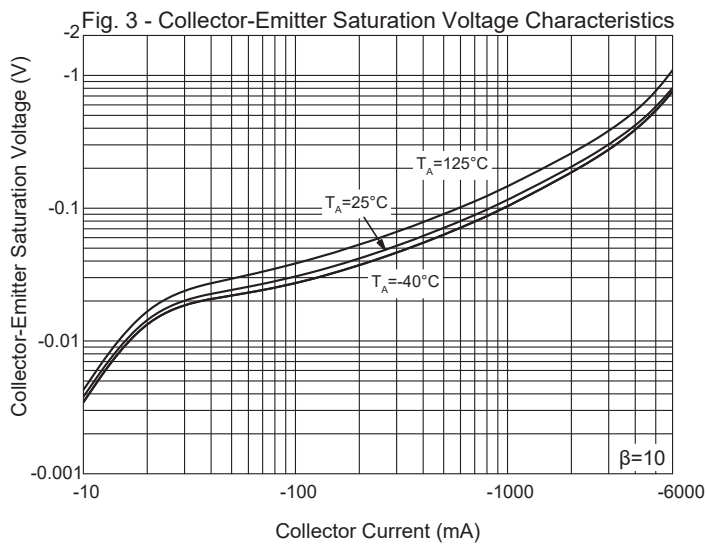
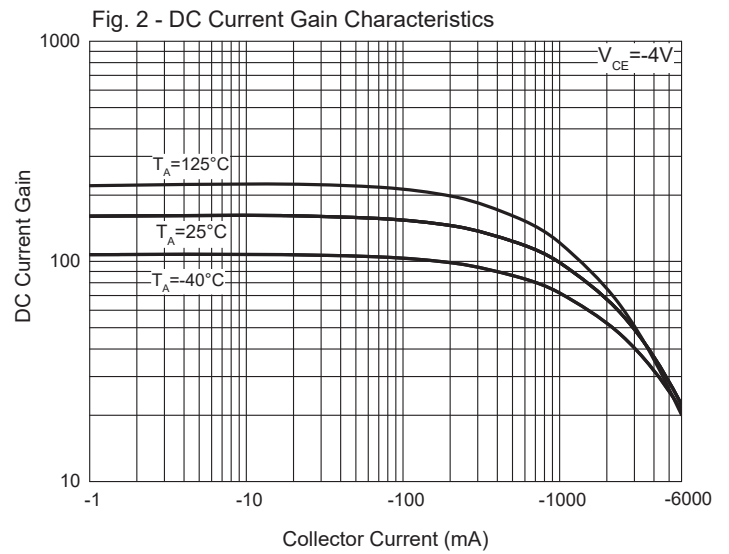
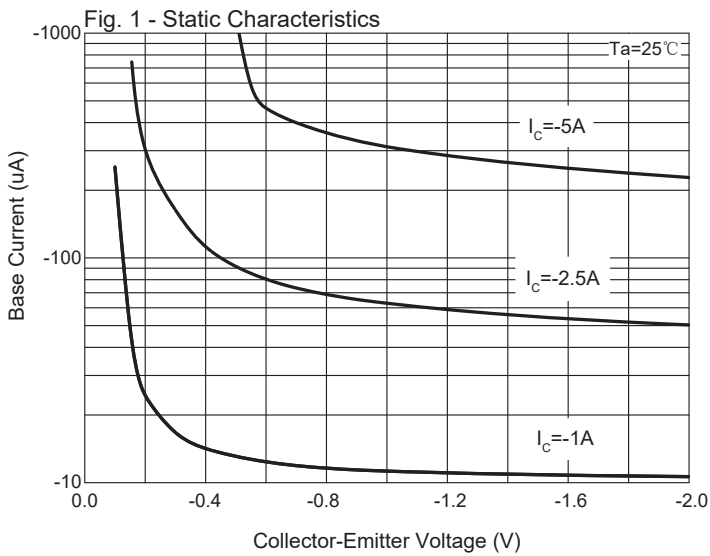
**Suggested Solder Pad Layout**



**Electrical Characteristics @  $T_A=25^\circ\text{C}$  Unless Otherwise Specified**

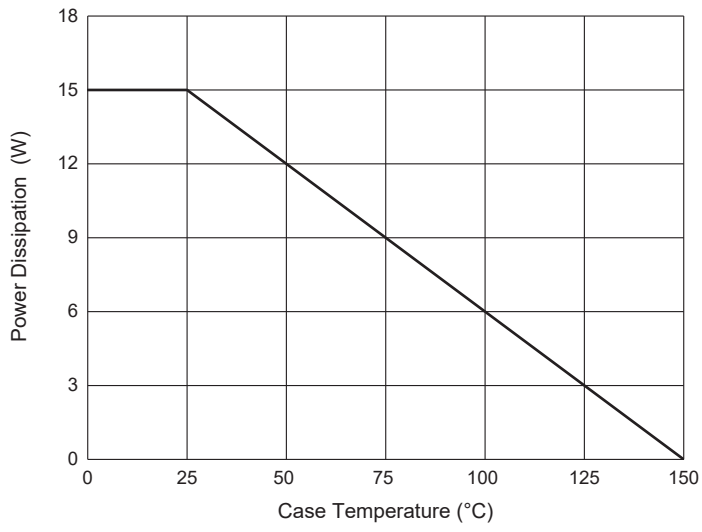
Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-100			V	$I_C=-0.1\text{mA}$ , $I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-100			V	$I_C=-30\text{mA}$ , $I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E=-0.1\text{mA}$ , $I_C=0$
Collector-Base Cutoff Current	$I_{CBO}$			-10	$\mu\text{A}$	$V_{CB}=-60\text{V}$ , $I_E=0$
Collector-Emitter Cutoff Current	$I_{CEO}$			-10	$\mu\text{A}$	$V_{CE}=-60\text{V}$ , $I_B=0$
Emitter-Base Cutoff Current	$I_{EBO}$			-10	$\mu\text{A}$	$V_{EB}=-5\text{V}$ , $I_C=0$
DC Current Gain	$h_{FE(1)}$	30				$V_{CE}=-4\text{V}$ , $I_C=-1\text{A}$
	$h_{FE(2)}$	15		75		$V_{CE}=-4\text{V}$ , $I_C=-3\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1.5	V	$I_C=-6\text{A}$ , $I_B=-0.6\text{A}$
Base-Emitter Voltage	$V_{BE}$			-2.0	V	$V_{CE}=-4\text{V}$ , $I_C=-6\text{A}$
Transition Frequency	$f_T$	3			MHz	$V_{CE}=-10\text{V}$ , $I_C=-0.5\text{A}$ , $f=100\text{MHz}$

**Curve Characteristics**



## Curve Characteristics

Fig. 7 - Power Derating Curve



## Ordering Information

Device	Packing
MJD42CHE3-TP	Tape&Reel: 2.5Kpcs/Reel

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