



Micro Commercial Components

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MJD112

Features

- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material:Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- High DC Current Gain
- Built-in a damper diode at E-C
- Maximum Thermal Resistance: 125°C/W Junction to Ambient

Maximum Ratings @ 25°C Unless Otherwise Specified

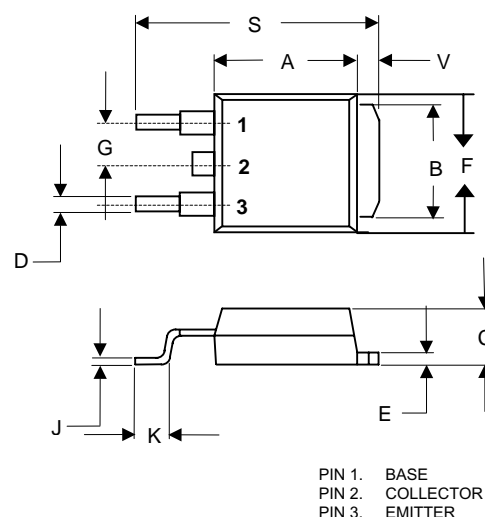
Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	100	V
V_{CBO}	Collector-Base Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
P_C	Collector Dissipation	1.0	W
T_J	Operating Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=30\text{mA}$, $I_E=0$)	100	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=1\text{mA}$, $I_E=0$)	100	---	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=5\text{mA}$, $I_C=0$)	5	---	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=100\text{Vdc}$, $I_E=0$)	---	---	20	nAdc
I_{CEO}	Collector emitter cutoff Current ($V_{CE}=50\text{Vdc}$, $I_E=0$)	---	---	20	nAdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5\text{Vdc}$, $I_C=0$)	---	---	2	mAdc
h_{FE}	DC Current Gain ($I_C=500\text{mA}$, $V_{CE}=3\text{Vdc}$) ($I_C=2\text{Adc}$, $V_{CE}=3\text{Vdc}$) ($I_C=4\text{Adc}$, $V_{CE}=3\text{Vdc}$)	500 1000 200	---	---	12000 ---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=2\text{Adc}$, $I_B=8\text{mA}$) ($I_C=4\text{Adc}$, $I_B=40\text{mA}$)	---	---	2 3	Vdc Vdc
f_T	Transition frequency ($V_{CE}=10\text{Vdc}$, $f=1\text{MHz}$, $I_C=0.75\text{A}$)	25	---	---	MHz
V_{BE}	Base-Emitter Saturation Voltage ($I_C=2\text{Adc}$, $V_{CE}=3\text{Vdc}$)	---	---	2.8	Vdc
C_{ob}	Output Capacitance ($V_{CB}=10\text{Vdc}$, $f=0.1\text{MHz}$, $I_E=0$)	---	---	100	pF

Silicon NPN epitaxial planer Transistors

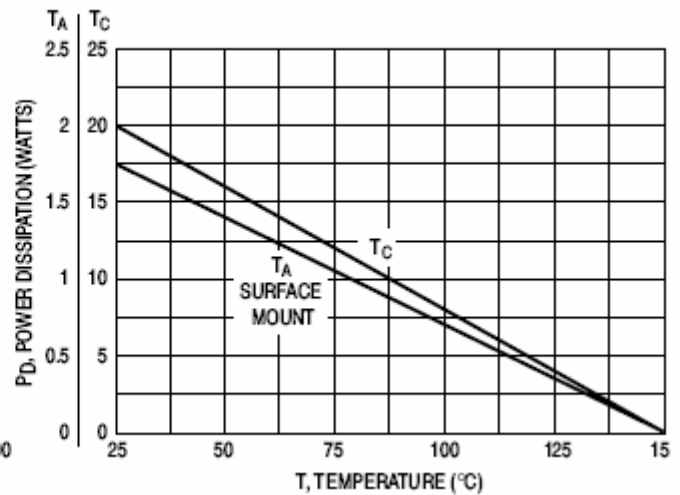
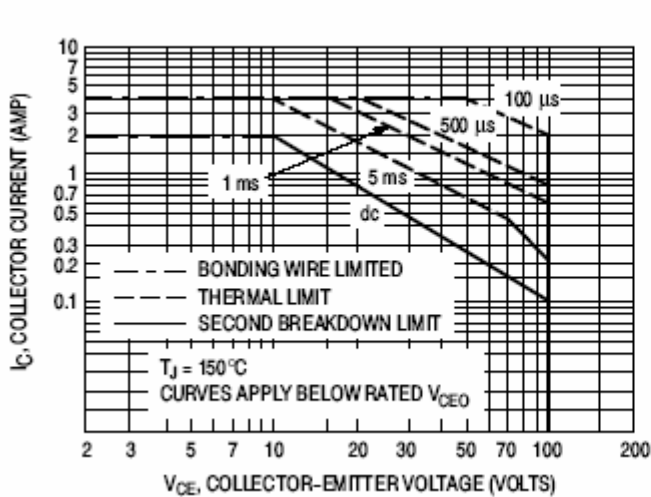
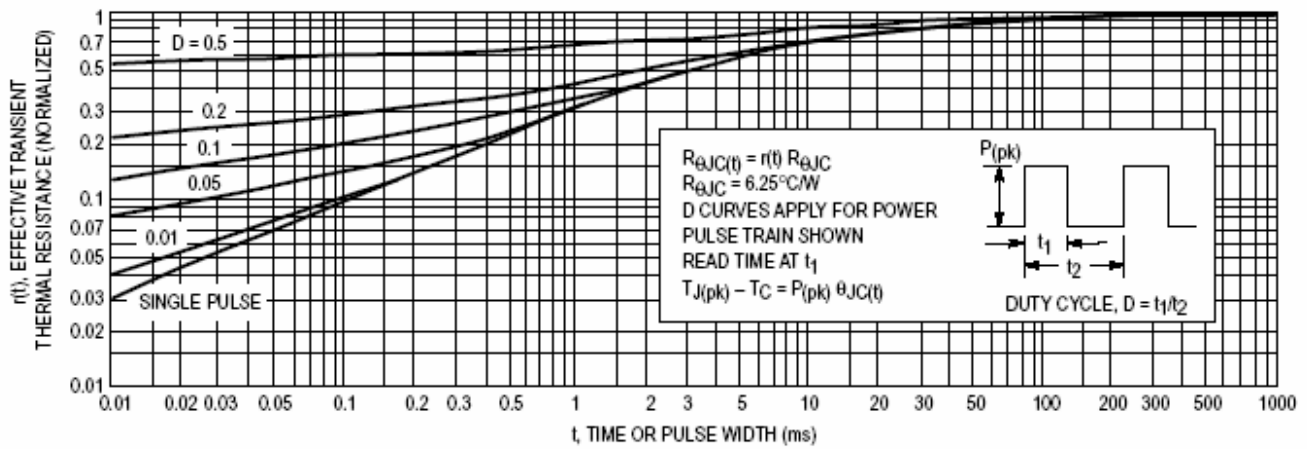
DPACK



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.235	0.245	5.97	6.22	
B	0.205	0.215	5.21	5.46	
C	0.086	0.094	2.19	2.38	
D	0.025	0.035	0.64	0.89	
E	0.035	0.045	0.99	1.14	
F	0.250	0.265	6.35	6.73	
G	0.090		2.28		
J	0.018	0.023	0.48	0.58	
K	0.020	---	0.51	---	
S	0.370	0.410	9.40	10.42	
V	0.035	0.050	0.88	1.27	

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Typical Characteristics



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2500pcs/Reel

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