Micro Commercial Components

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MJD127

Silicon PNP epitaxial planer Transistors

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High DC Current Gain
- Electrically similar to popular TIP 127
- Built-in a damper diode at E-C
- Maximum Thermal Resistance: 83.3°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	-8	A
P_C	Collector Dissipation	1.5	W
T_J	Operating Junction Temperature	150	℃
T_{STG}	Storage Temperature	-55 to +150	℃

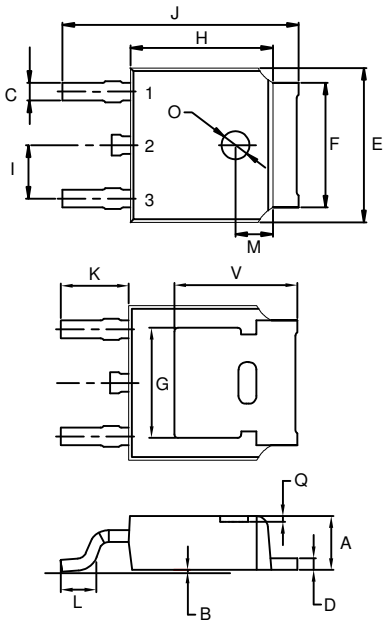
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=-30mAdc, I_B=0)	-100	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=-1mAdc, I_E=0)	-100	---	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage (I_E=-1mAdc, I_C=0)	-5	---	---	Vdc
I_{CBO}	Collector Cutoff Current (V_{CB}=-100Vdc, I_E=0)	---	---	-10	nAdc
I_{CEX}	Collector emitter cutoff Current (V_{CB}=-100Vdc, $V_{BE(off)}$=1.5V)	---	---	-10	nAdc
I_{EBO}	Emitter Cutoff Current (V_{EB}=-5Vdc, I_C=0)	---	---	-2	nAdc
h_{FE}	DC Current Gain (I_C=-4Adc, V_{CE}=-4Vdc)	1000	---	12000	
	(I_C=-8Adc, V_{CE}=-4Vdc)	100			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=-4Adc, I_B=-16mAdc) (note 1)	---	----	-2	Vdc
	(I_C=-8Adc, I_B=-80mAdc)(note 1)	---	----	-4	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=-8Adc, I_B=-80mAdc) (note 1)	---	----	-4.5	Vdc
V_{BE}	Base-Emitter Saturation Voltage (I_C=-4Adc, V_{CE}=-4Vdc) (note 1)	---	----	-2.8	Vdc
C_{ob}	Output Capacitance (V_{CB}=-10Vdc, f=0.1MHz, I_E=0)	---	---	300	pF

Note:

1.Pulse Test: Pulse Width≤380μs, Duty Cycle≤2%

DPAK



PIN 1. BASE
PIN 2. COLLECTOR
PIN 3. EMITTER

DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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		
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		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

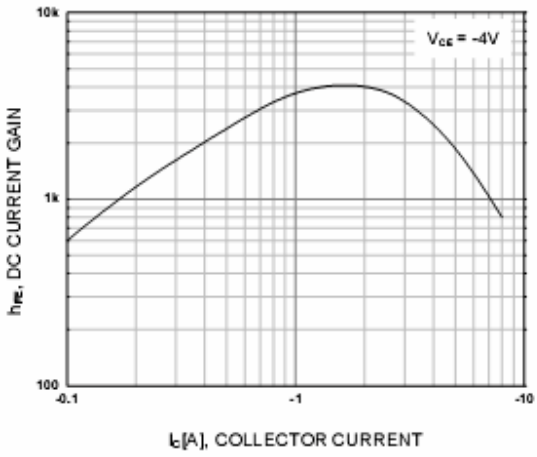


Figure 1. DC current Gain

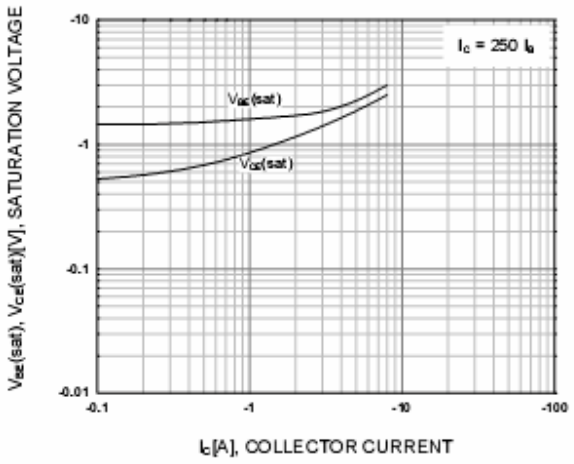


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

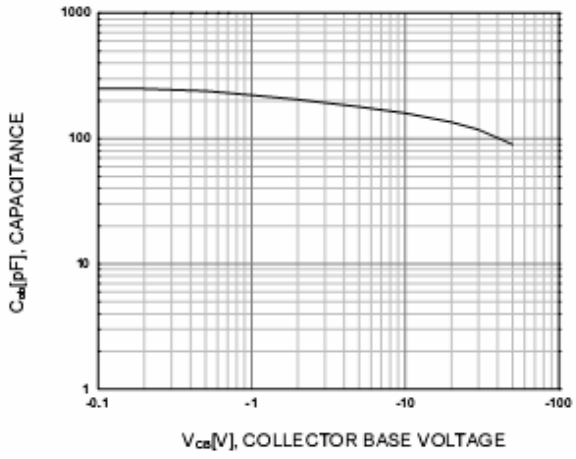


Figure 3. Collector Output Capacitance

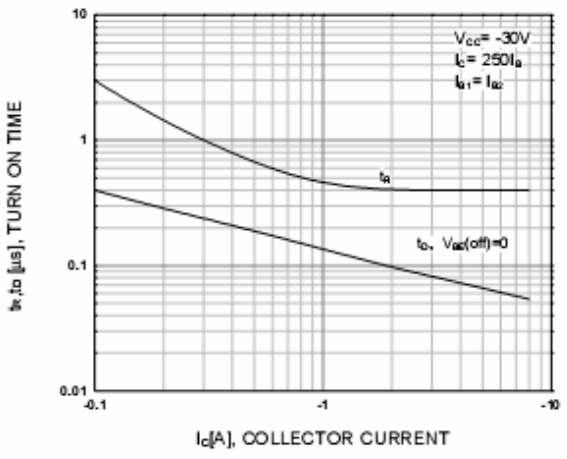


Figure 4. Turn On Time

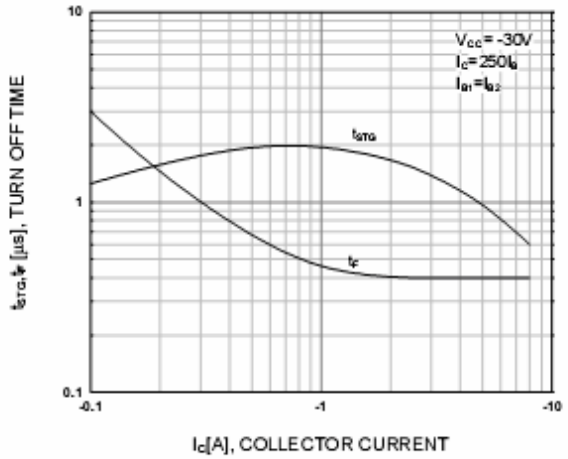


Figure 5. Turn Off Time

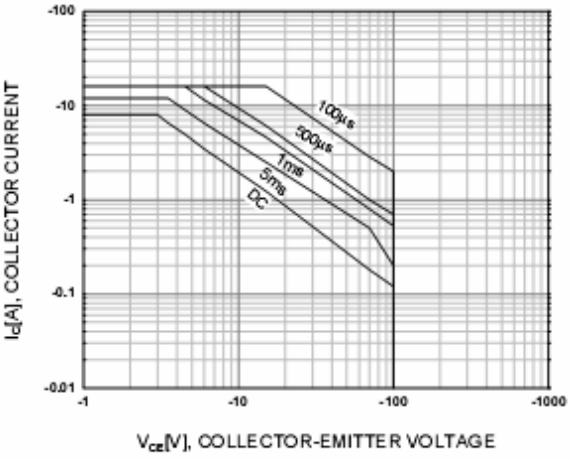


Figure 6. Safe Operating Area

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF