

Micro Commercial Components



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Unit

V

Features

- Low Collector Saturation Voltage
- Execllent current-to-gain characteristics
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Katings			
Symbol	Rating	Rating	
V _{CEO}	Collector-Emitter Voltage	160	
V _{CBO}	Collector-Base Voltage	160	
Vera	Emitter-Base Voltage	5.0	

V _{CBO}	Collector-Base Voltage	160	V
V _{EBO}	Emitter-Base Voltage	5.0	V
I _C	Collector Current	1.5	А
Pc	Collector power dissipation	1.0	W
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Snecified

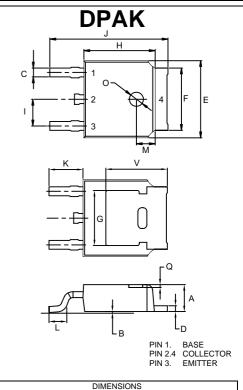
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Symbol	Parameter	Min	Тур	Max	Units
V _{(BR)CBO}	Collector-base Breakdown Voltage (I _c =1.0mAdc, I _E =0)	160			Vdc
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =10mAdc, I _B =0)	160			Vdc
V _{(BR)EBO}	Emitter-base Breakdown Voltage (I _E =1.0mAdc, I _C =0)				Vdc
I _{CBO}	Collector-Base Cutoff Current (V _{CB} =160Vdc,I _E =0)			1.0	µAdc
I _{EBO}	Emitter-Base Cutoff Current (V _{EB} =5Vdc, I _C =0)			1.0	µAdc
h _{FE(1)}	DC Current Gain (I _c =100mAdc, V _{ce} =5.0Vdc)	70		240	
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =0.5Adc, I _B =-50mAdc)			1.5	Vdc
V _{BE}	Base-Emitter Voltage (V _{CE} =5Vdc, I _C =500mAdc)			1.0	Vdc
f _T	Transition Frequency (V _{CE} =10Vdc, I _C =100mAdc)		100		MHz
C _{ob}	Collector output capacitance (V _{CB} =10Vdc, I _E =0,f=1.0MHz)		25		pF

CLASSIFICATION OF HFE (D)

Rank	0	Y	
Range	70-140	120-240	

2SC2983-0 2SC2983-Y

NPN Plastic-Encapsulate Transistors



	DIMENSIONS				
	INCI	HES	м	M	
DIM	MIN	MAX	MIN	MAX	NOTE
Α	0.087	0.094	2.20	2.40	
В	0.000	0.005	0.00	0.13	
С	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
Е	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.19	0.190		4.83	
Н	0.236	0.244	6.00	6.20	
1	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	
М	0.063		1.60		
0	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.	211	5.35		

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Static Characteristic h 200 1000 COMMON COMMON EMITTER V_{CE}= 5V T₄=25℃ (mA) 150 m Ļ T_=100°C COLLECTOR CURRENT Ic 0.9mA DC CURRENT GAIN (.8mA T_=25℃ 100 0.7m/ 100 0.6mA .5mA 0.4mA 50 0.3mA 0.2mA I_B=0.1mA 0 10 ⊥ 100 「Ⅰ_c 2 10 1 COLLECTOR CURRENT 1000 1500 COLLECTOR-EMITTER VOLTAGE (mA) V_{CE} (V) V_{CEsat} $V_{_{BEsat}}$ ľ I_c 1000 300 1111 111 β=10 β=10 COLLECTOR-EMITTER SATURATION VOLTAGE VCE. (mV) 800 BASE-EMITTER SATURATION VOLTAGE V_{BEst} (mV) 100 $\mathsf{V}_{\mathsf{CEsat}}$ 600 =25°C T_=100 ℃ 400 10 200 0 L 0.1 1 L 0.1 100 1000 1500 1000 1500 10 100 10 COLLECTOR CURRENT I COLLECTOR CURRENT I (mA) (mA) $V_{_{BE}}$ ľ f_ I, 500 1500 1000 COMMON EMITTER COMMON EMITTER V_{CE}=10V V_{CE} =5V (MHz) T_=25℃ (mA) 100 TRANSITION FREQUENCY f_T _0 COLLECTOR CURRENT 100 10 10 ∟ 50 0.1 70 80 COLLECTOR CURRENT I_c (mA) 0 200 400 600 800 1000 1200 60 90 100 BASE-EMMITER VOLTAGE V_{BE} (mV)

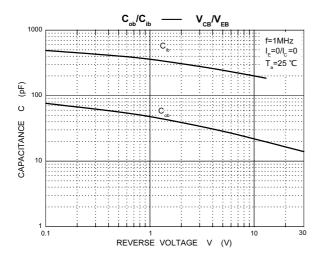
Typical Characteristics

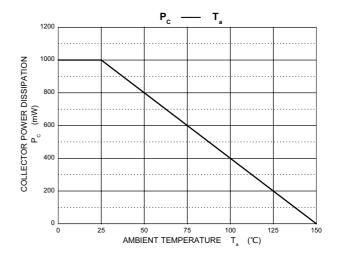
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2013/07/04



Typical Characteristics





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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

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