

2SC2983-Y-TP Datasheet

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| | |
|------------------------------|--|
| DiGi Electronics Part Number | 2SC2983-Y-TP-DG |
| Manufacturer | Micro Commercial Co |
| Manufacturer Product Number | 2SC2983-Y-TP |
| Description | TRANS NPN 160V 1.5A DPAK |
| Detailed Description | Bipolar (BJT) Transistor NPN 160 V 1.5 A 100MHz 1 W Surface Mount DPAK |

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Purchase and inquiry

Manufacturer Product Number:

2SC2983-Y-TP

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

160 V

Current - Collector Cutoff (Max):

1 μ A (ICBO)

Power - Max:

1 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-252-3, DPAK (2 Leads + Tab), SC-63

Base Product Number:

2SC2983

Manufacturer:

Micro Commercial Co

Product Status:

Obsolete

Current - Collector (Ic) (Max):

1.5 A

Vce Saturation (Max) @ Ib, Ic:

1.5V @ 50mA, 500mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

70 @ 100mA, 5V

Frequency - Transition:

100MHz

Mounting Type:

Surface Mount

Supplier Device Package:

DPAK

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.29.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



Micro Commercial Components



Micro Commercial Components
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2SC2983-O**2SC2983-Y**

Features

- Low Collector Saturation Voltage
- Excellent 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 Ratings

| Symbol | Rating | Rating | Unit |
|-----------|-----------------------------|-------------|-------------|
| V_{CEO} | Collector-Emitter Voltage | 160 | V |
| V_{CBO} | Collector-Base Voltage | 160 | V |
| V_{EBO} | Emitter-Base Voltage | 5.0 | V |
| I_C | Collector Current | 1.5 | A |
| P_C | Collector power dissipation | 1.0 | W |
| T_J | Junction Temperature | 150 | $^{\circ}C$ |
| T_{STG} | Storage Temperature | -55 to +150 | $^{\circ}C$ |

Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

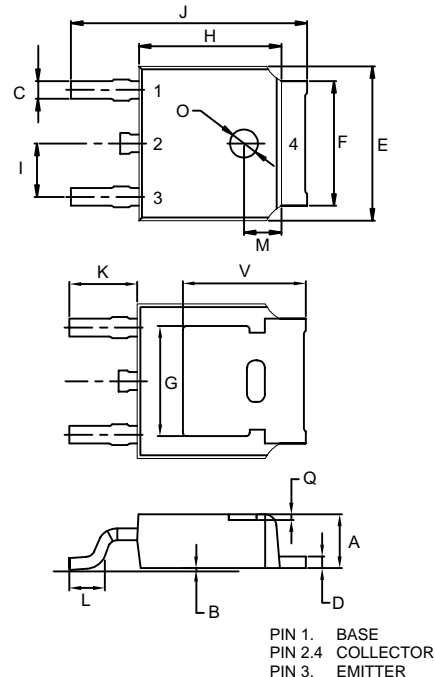
| Symbol | Parameter | Min | Typ | Max | Units |
|---------------|---|-----|-----|-----|---------|
| $V_{(BR)CBO}$ | Collector-base Breakdown Voltage ($I_C=1.0mA$, $I_E=0$) | 160 | --- | --- | Vdc |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage ($I_C=10mA$, $I_B=0$) | 160 | --- | --- | Vdc |
| $V_{(BR)EBO}$ | Emitter-base Breakdown Voltage ($I_E=1.0mA$, $I_C=0$) | 5 | --- | --- | Vdc |
| I_{CBO} | Collector-Base Cutoff Current ($V_{CB}=160Vdc$, $I_E=0$) | --- | --- | 1.0 | μA |
| I_{EBO} | Emitter-Base Cutoff Current ($V_{EB}=5Vdc$, $I_C=0$) | --- | --- | 1.0 | μA |
| $h_{FE(1)}$ | DC Current Gain ($I_C=100mA$, $V_{CE}=5.0Vdc$) | 70 | --- | 240 | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage ($I_C=0.5A$, $I_B=-50mA$) | --- | --- | 1.5 | Vdc |
| V_{BE} | Base-Emitter Voltage ($V_{CE}=5Vdc$, $I_C=500mA$) | --- | --- | 1.0 | Vdc |
| f_T | Transition Frequency ($V_{CE}=10Vdc$, $I_C=100mA$) | --- | 100 | --- | MHz |
| C_{ob} | Collector output capacitance ($V_{CB}=10Vdc$, $I_E=0$, $f=1.0MHz$) | --- | 25 | --- | pF |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | O | Y |
|-------|--------|---------|
| Range | 70-140 | 120-240 |

NPN Plastic-Encapsulate Transistors

DPAK



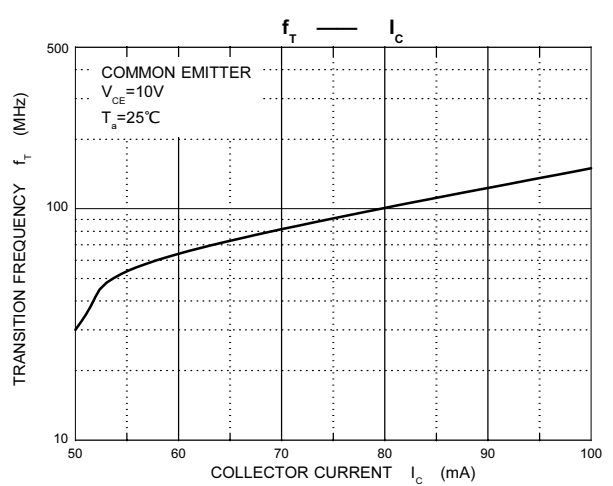
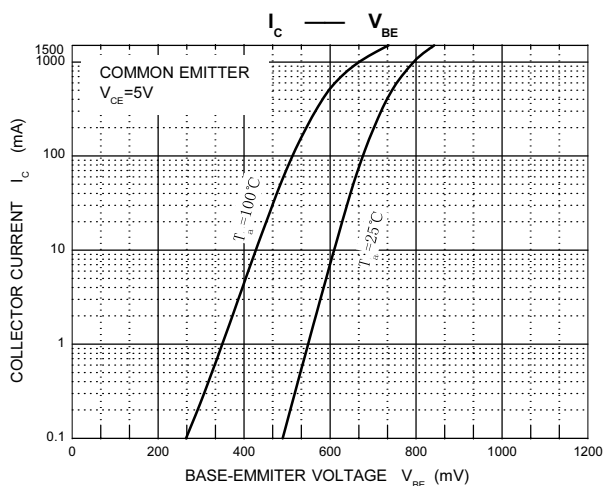
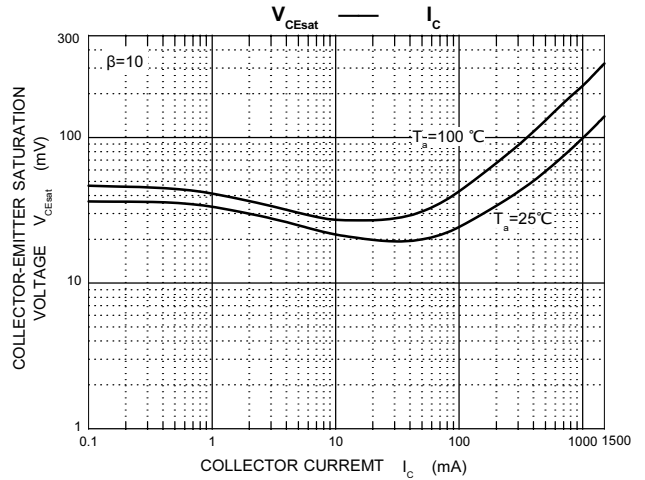
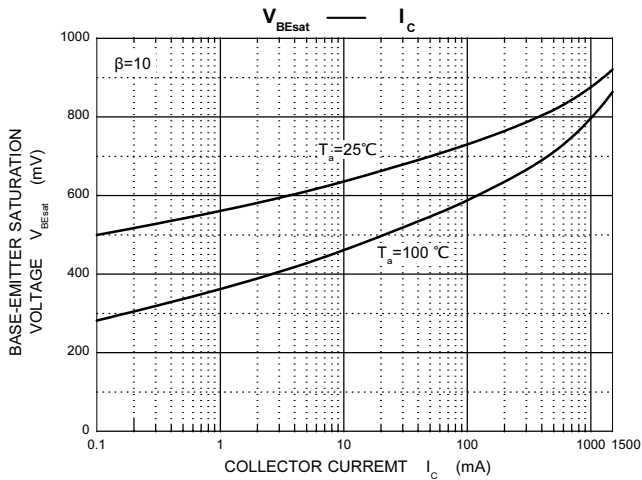
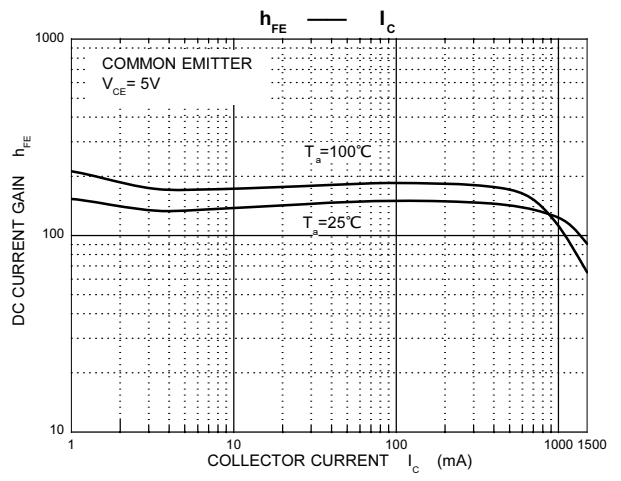
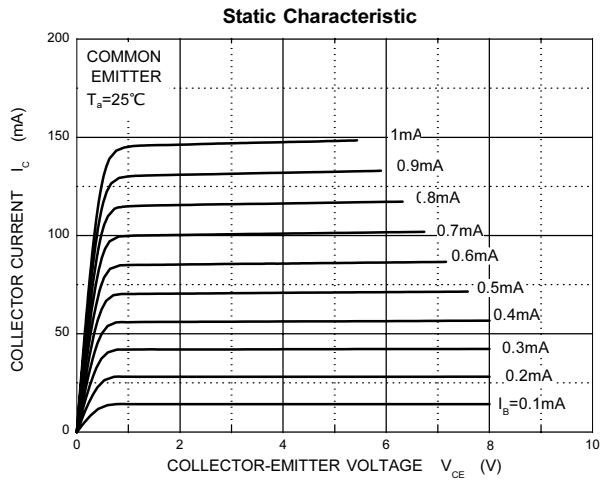
DIMENSIONS

| 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 | | |
| 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 | | |

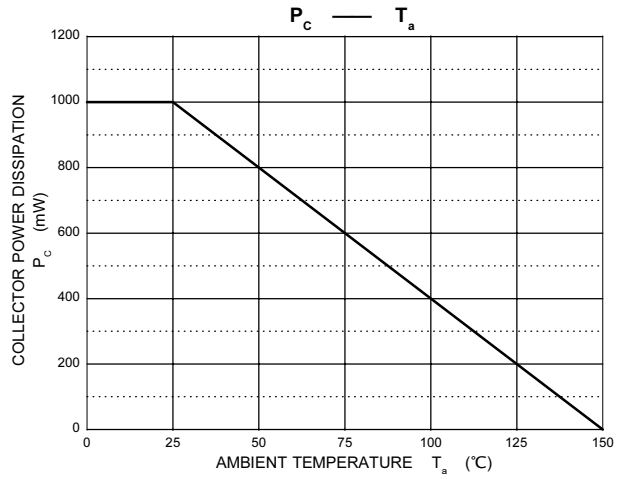
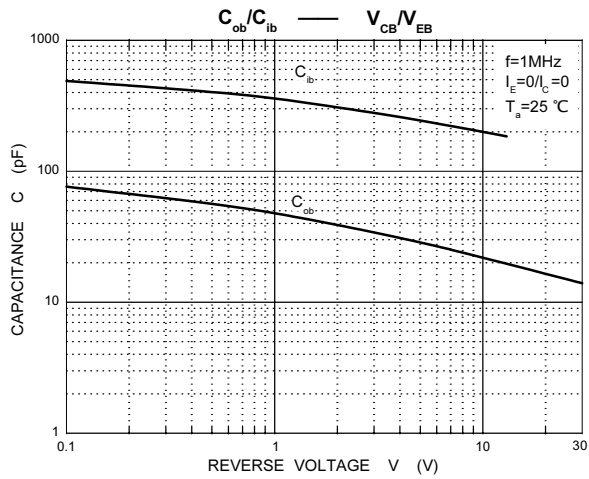
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Typical Characteristics



Typical Characteristics





TM

Micro Commercial Components

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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