

## Features

- Halogen Free. "Green" Device (Note 1)
- 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)

## NPN Plastic-Encapsulate Transistors

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

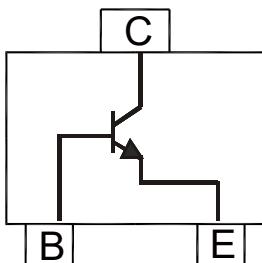
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	75	V
Collector-Emitter Voltage	$V_{CEO}$	40	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	600	mA
Power Dissipation	$P_D$	100	mW

### Thermal characteristics

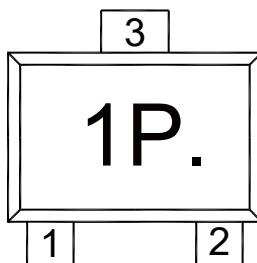
Parameter	Symbol	Rating	Unit
Junction Temperature Range	$T_j$	-55~+150	°C
Storage Temperature Range	$T_{stg}$	-55~+150	°C
Thermal Resistance from Junction to Ambient	$R_{th(j-A)}$	1250	°C/W

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

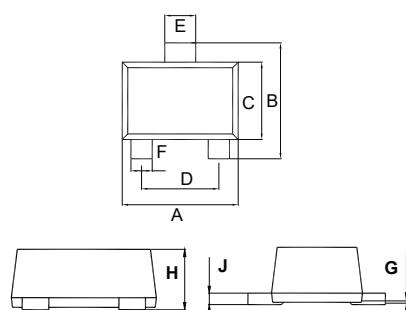
### Internal Structure



### Marking Code



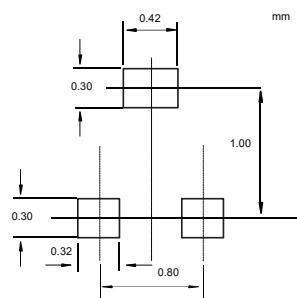
### SOT-723



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.043	0.051	1.10	1.30	
B	0.043	0.051	1.10	1.30	
C	0.028	0.035	0.70	0.90	
D	0.031		0.80		TYP.
E	0.009	0.017	0.22	0.42	
F	0.005	0.013	0.12	0.32	
G	0.000	0.002	0.00	0.05	
H	0.017	0.021	0.43	0.54	
J	0.003	0.006	0.08	0.15	

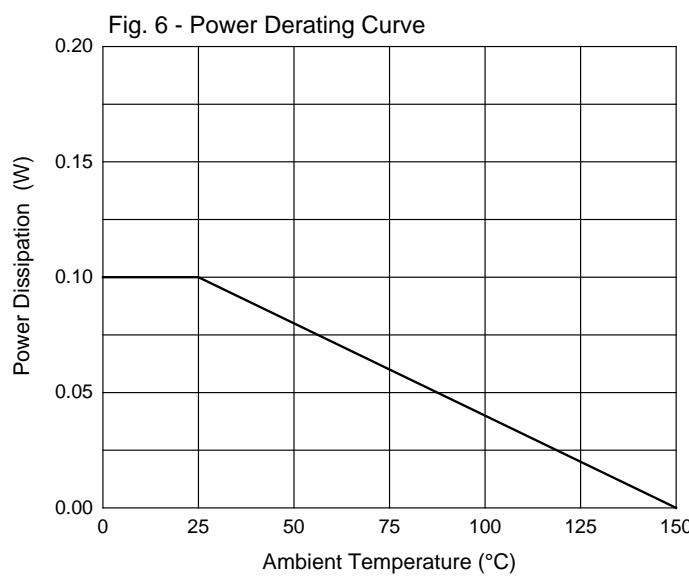
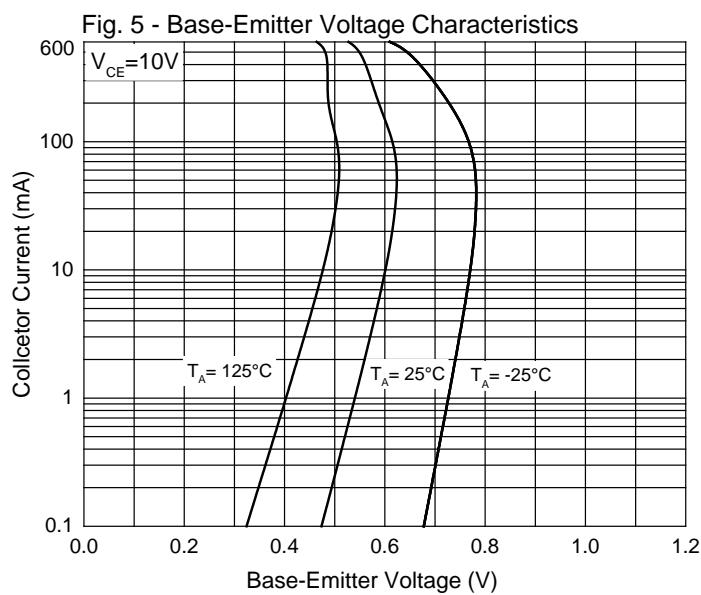
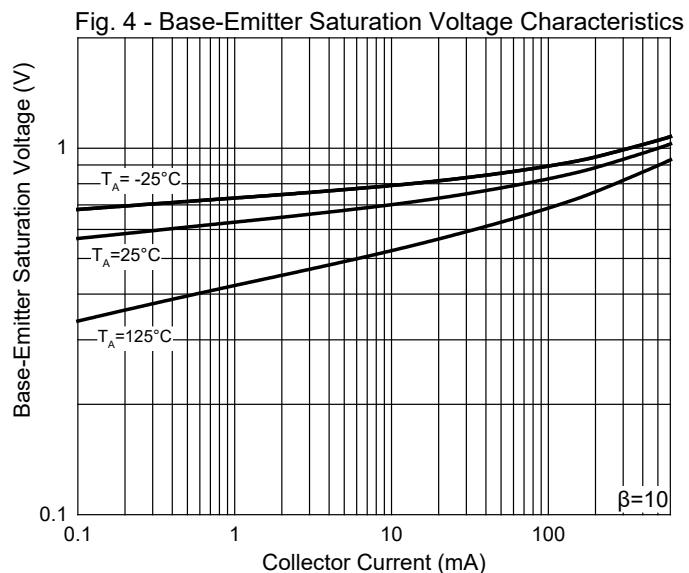
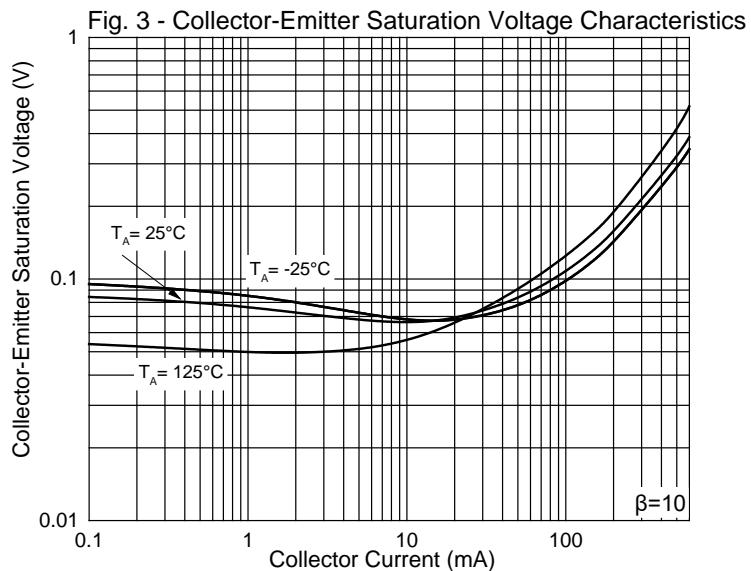
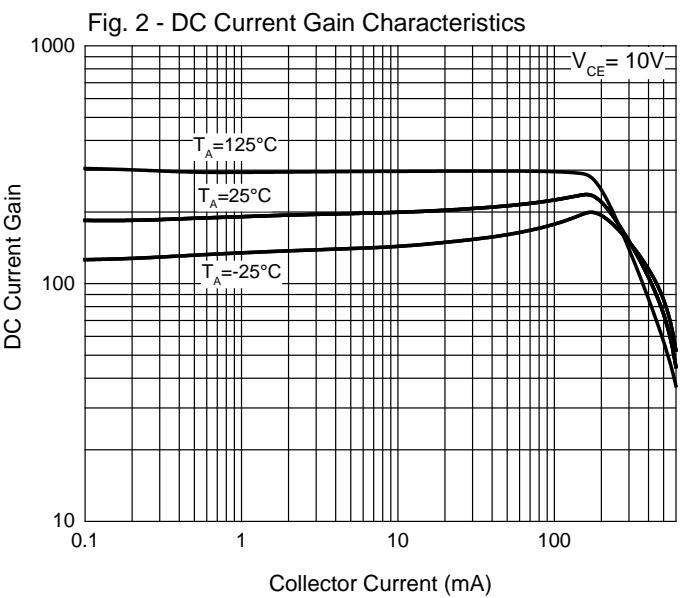
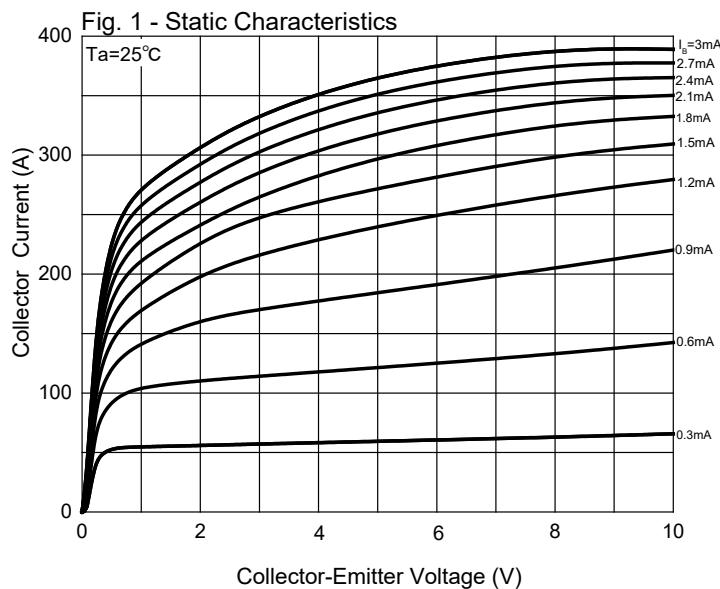
### Suggested Solder Pad Layout



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

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(\text{BR})\text{CBO}}$	75			V	$I_C=10\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	40			V	$I_C=10\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(\text{BR})\text{EBO}}$	6			V	$I_E=10\mu\text{A}, I_C=0$
Collector-Base Cutoff Current	$I_{\text{CBO}}$			100	nA	$V_{\text{CB}}=60\text{V}, I_E=0$
Emitter-Base Cutoff Current	$I_{\text{EBO}}$			100	nA	$V_{\text{EB}}=3\text{V}, I_C=0$
Collector-Emitter Cutoff Current	$I_{\text{CEX}}$			10	nA	$V_{\text{CE}}=60\text{V}, V_{\text{EB}}=3\text{V}$
DC Current Gain	$h_{\text{FE}(1)}$	35				$V_{\text{CE}}=10\text{V}, I_C=0.1\text{mA}$
	$h_{\text{FE}(2)}$	50				$V_{\text{CE}}=10\text{V}, I_C=1\text{mA}$
	$h_{\text{FE}(3)}$	80				$V_{\text{CE}}=10\text{V}, I_C=10\text{mA}$
	$h_{\text{FE}(4)}$	100		300		$V_{\text{CE}}=10\text{V}, I_C=150\text{mA}$
	$h_{\text{FE}(5)}$	50				$V_{\text{CE}}=1\text{V}, I_C=150\text{mA}$
	$h_{\text{FE}(6)}$	40				$V_{\text{CE}}=10\text{V}, I_C=500\text{mA}$
Collector-Emitter Saturation Voltage	$V_{\text{CE}(\text{sat})}$			0.3	V	$I_C=150\text{mA}, I_B=15\text{mA}$
Base-Emitter Saturation Voltage	$V_{\text{BE}(\text{sat})}$	0.6		1.2	V	$I_C=150\text{mA}, I_B=15\text{mA}$

## Curve Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

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