



Micro Commercial Components



Micro Commercial Components
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2SD1499-P

Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Wide Safe Operation Area
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	100	V
V_{CBO}	Collector-Base Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous	5.0	A
P_C	Collector power dissipation	2.0	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	100	---	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=10mA$, $I_E=0$)	100	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	5	---	---	Vdc
I_{CEO}	Collector-Emitter Cutoff Current ($V_{CE}=50Vdc$, $I_B=0$)	---	---	50	μA
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=100Vdc$, $I_E=0$)	---	---	50	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=3.0Vdc$, $I_C=0$)	---	---	50	μA

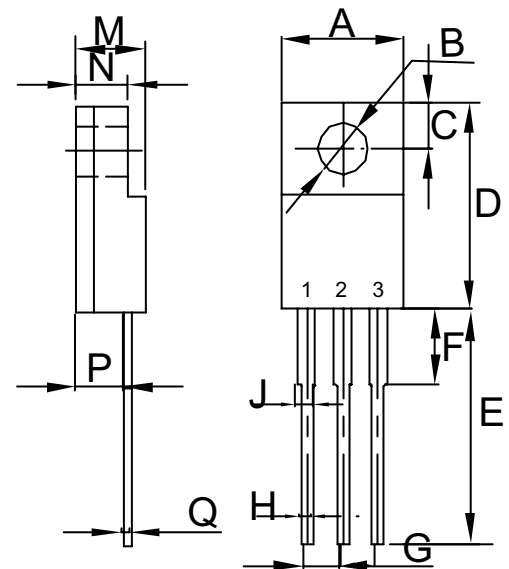
ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=20mA$, $V_{CE}=5.0Vdc$)	20	---	---	
$h_{FE(2)}$	DC Current Gain ($I_C=1.0A$, $V_{CE}=5.0Vdc$)	100	---	200	
$h_{FE(3)}$	DC Current Gain ($I_C=3.0A$, $V_{CE}=5.0Vdc$)	20	---	---	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=1.5A$, $I_B=1.5mA$)	---	---	2.0	Vdc
V_{BE}	Base-Emitter Voltage ($V_{CE}=5Vdc$, $I_C=3A$)	---	---	1.8	Vdc
C_{ob}	Collector output capacitance ($V_{CB}=10Vdc$, $I_E=0$, $f=1MHz$)	---	90		pF
f_T	Transition frequency ($V_{CE}=5Vdc$, $I_C=0.5A$, $f=1MHz$)	---	20		MHz

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

NPN Silicon Power Transistors

TO-220F



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

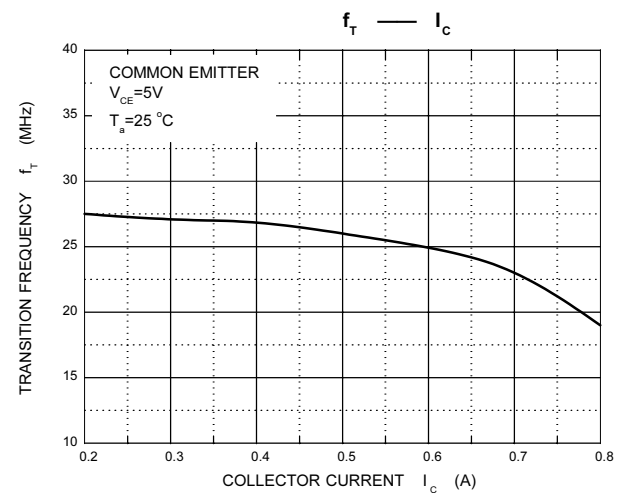
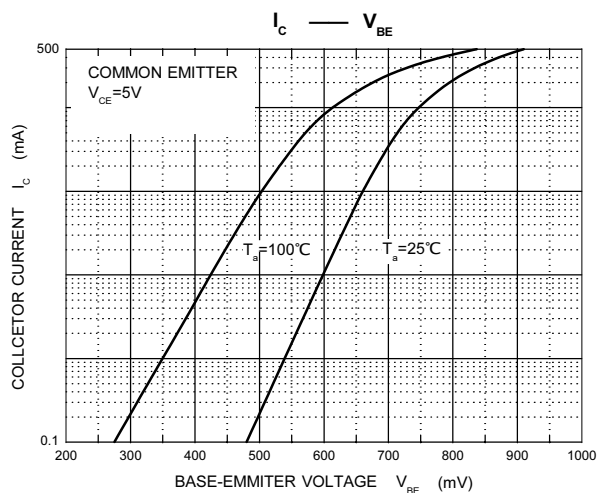
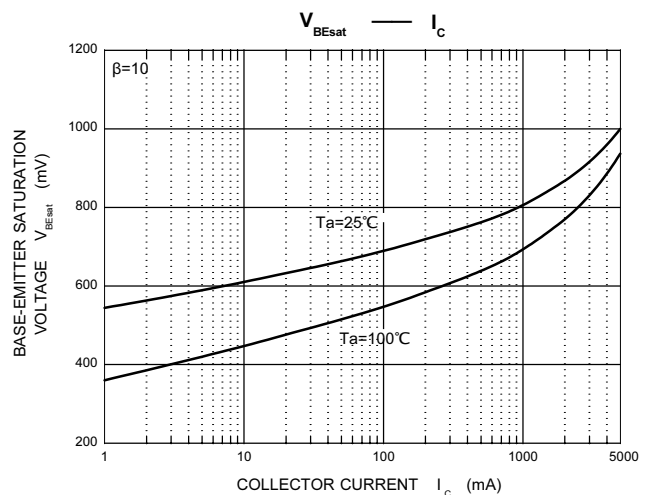
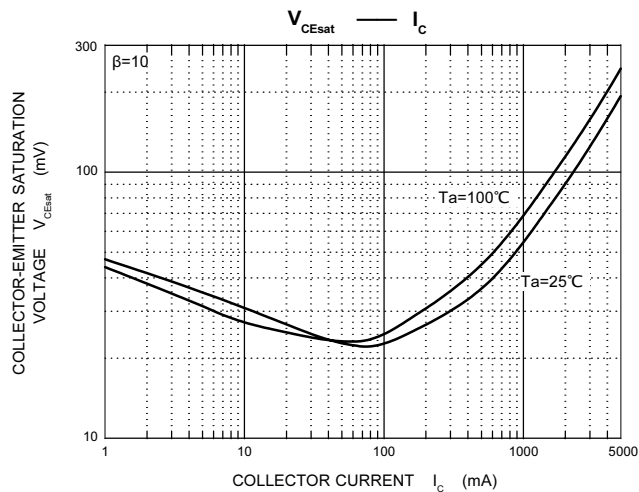
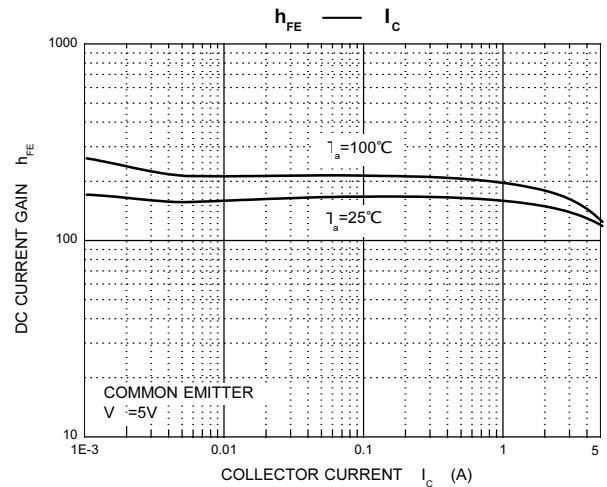
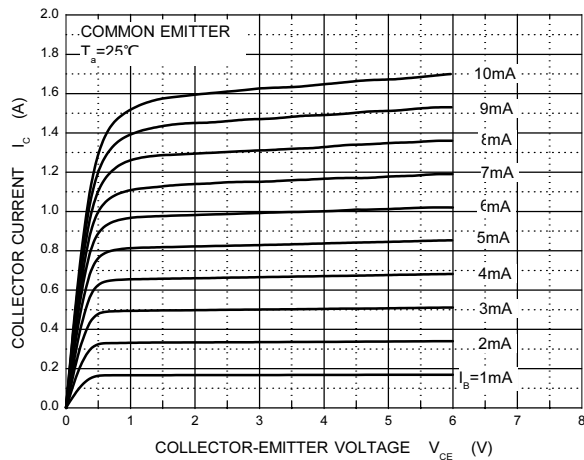
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.392	.408	9.96	10.36	
B	.138		3.50		Φ
C	.106		2.70		
D	.583	.598	14.80	15.20	
E	.520		13.20		
F	.142	.158	3.60	4.00	
G	.100		2.54		
H	.020	.035	0.50	0.90	
J	.043	.053	1.10	1.35	
M	.169	.185	4.30	4.70	
N	.104	.126	2.65	3.20	
P	.087	.114	2.20	2.90	
Q	.020	.030	0.50	0.75	

Typical Characteristics

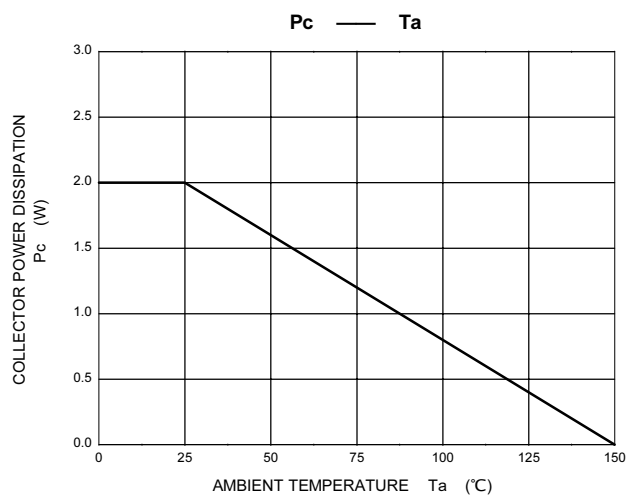
M.C.C.

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Static Characteristic



Typical Characteristics



Ordering Information :

Device	Packing
Part Number-BP	Bulk;5Kpcs/Box

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

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