2SC2383-Y-AP Datasheet

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DiGi Electronics Part Number	2SC2383-Y-AP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	2SC2383-Y-AP
Description	TRANS NPN 160V 1A TO92MOD
Detailed Description	Bipolar (BJT) Transistor NPN 160 V 1 A 20MHz 900 m W Through Hole TO-92MOD

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SC2383-Y-AP	Micro Commercial Co
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	1 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
160 V	1V @ 50mA, 500mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
10µA	160 @ 200mA, 5V
Power - Max:	Frequency - Transition:
900 mW	20MHz
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 Long Body (Formed Leads)	TO-92MOD
Base Product Number:	
2SC2383	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
RoHS Compliant	1 (Unlimited)
ECCN:	HTSUS:
EAR99	8541.21.0095

NPN Plastic-Encapsulate Transistor

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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)

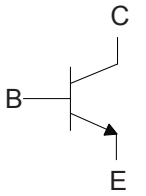
Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Thermal Resistance: 139℃/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Continuous Collector Current	I_C	1	A
Power Dissipation	P_D	0.9	W

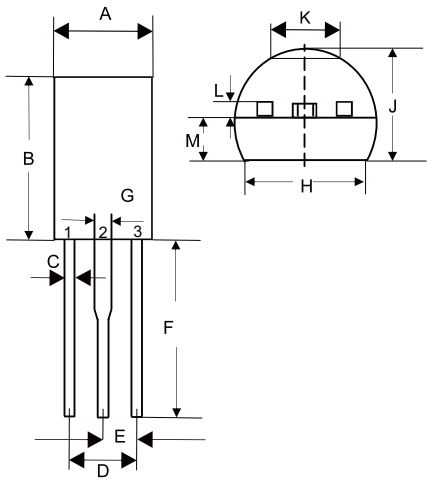
Marking: C2383

Internal Structure



1.EMITTER
2.COLLECTOR
3.BASE

TO-92MOD



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.228	0.244	5.80	6.20	
B	0.331	0.346	8.40	8.80	
C	0.016	0.024	0.40	0.60	
D	0.114	0.122	2.90	3.10	Straight Lead
	0.173	0.220	4.40	5.60	Bent Lead
E	0.059		1.50		Straight Lead
	0.086	0.110	2.20	2.80	Bent Lead
F	0.543	0.559	13.80	14.20	
G	0.035	0.043	0.90	1.10	
H	0.157	-----	4.00	-----	
J	0.185	0.201	4.70	5.10	
K	-----	0.063	-----	1.60	
L	0.016	0.020	0.40	0.50	
M	0.068	0.080	1.73	2.03	

Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	160			V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	160			V	I_C=10mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6			V	I_E=10μA, I_C=0
Collector-Base Cutoff Current	I_{CBO}			1	μA	V_{CB}=150V, I_E=0
Collector Cutoff Current	I_{CER}			10	μA	V_{CB}=150V, R_{EB}=10MΩ
Emitter-Base Cutoff Current	I_{EBO}			1	μA	V_{EB}=6V, I_C=0
DC Current Gain	h_{FE}	60		320		V_{CE}=5V, I_C=200mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			1	V	I_C=500mA, I_B=50mA
Base-Emitter Voltage	V_{BE}			0.75	V	V_{CE}=5V, I_C=5mA
Transition Frequency	f_T	20			MHz	V_{CE}=5V, I_C=200mA

Classification of $h_{FE(1)}$

Rank	R	O	Y
Range	60-120	100-200	160-320

Curve Characteristics

Fig. 1 - Static Characteristics

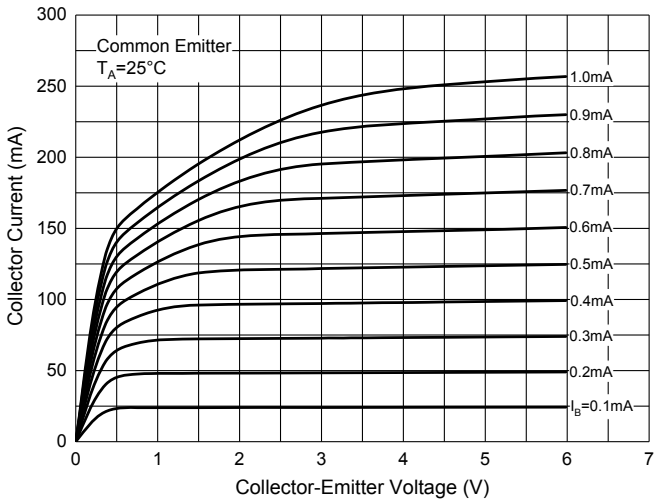


Fig. 2 - DC Current Gain Characteristics

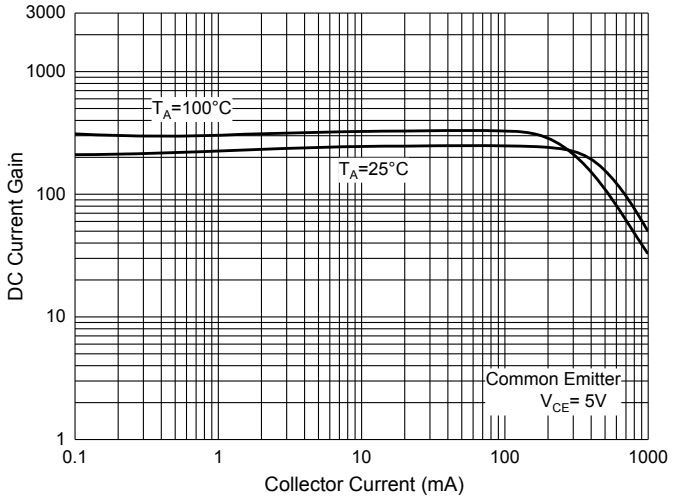


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

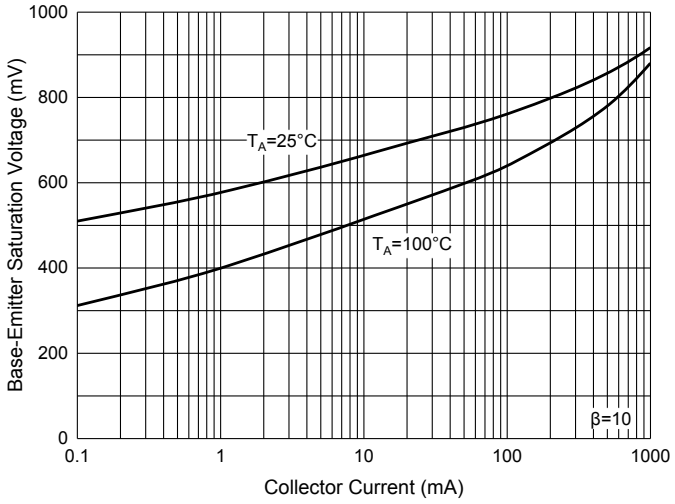


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

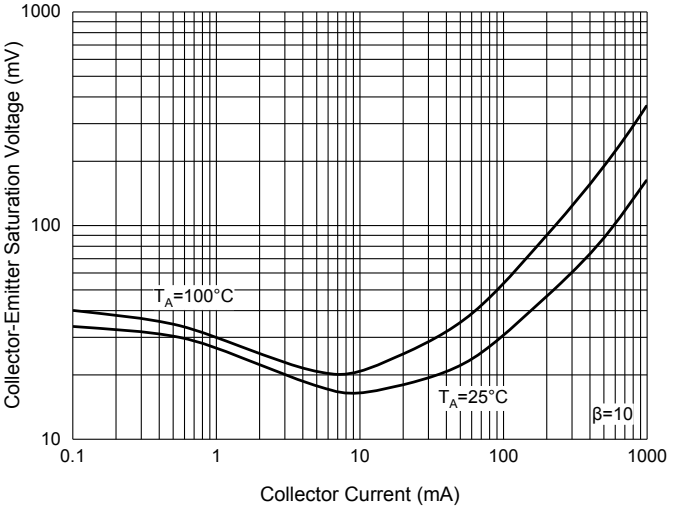


Fig. 5 - Base-Emitter Voltage Characteristics

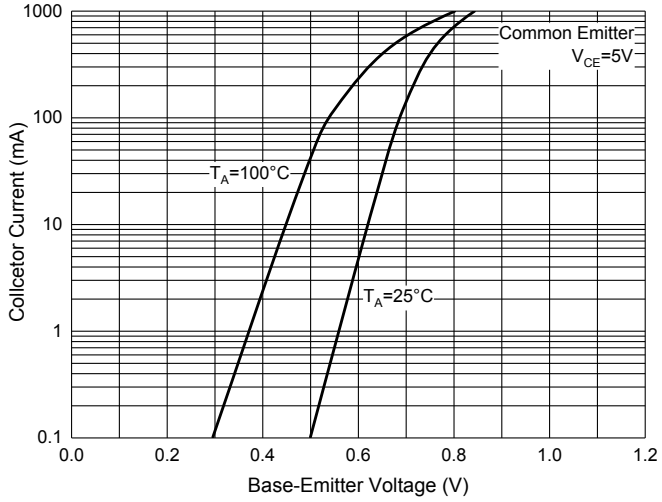
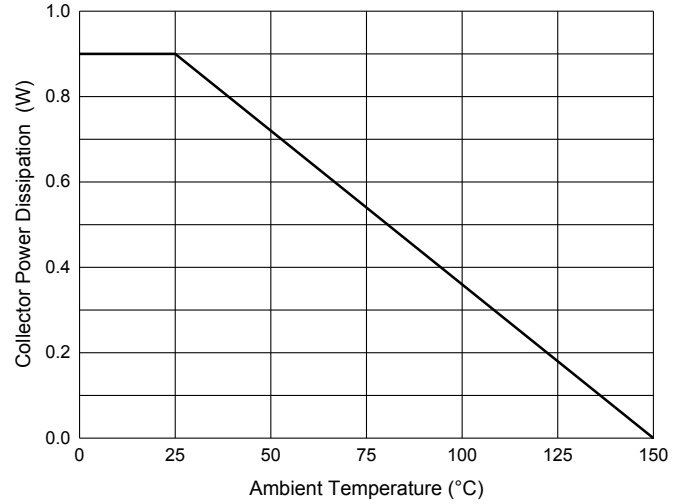


Fig. 6 - Collector Power Derating Curve



Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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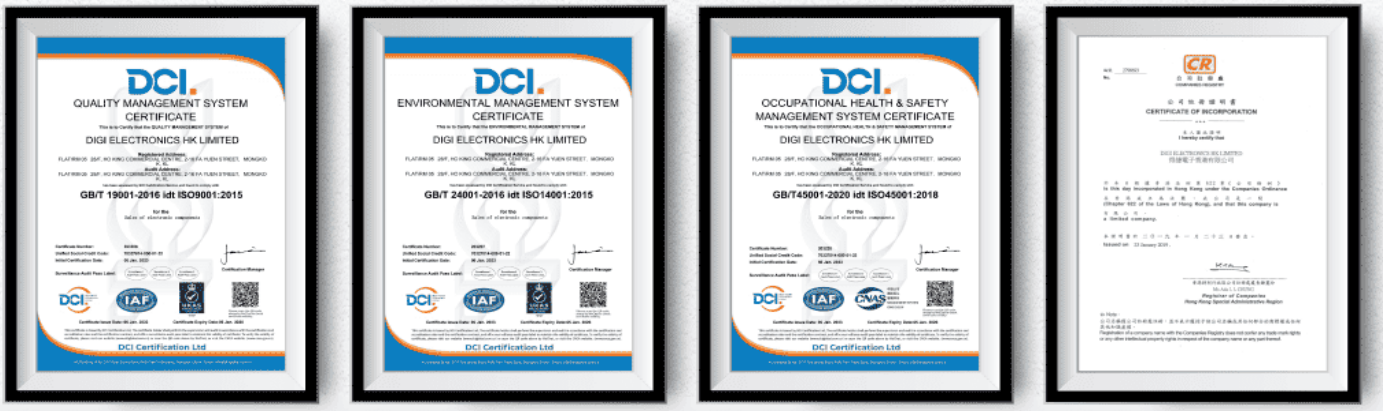

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