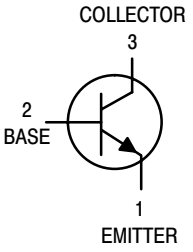
LM8050I, LM8050J

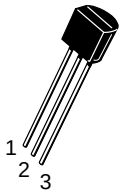
Amplifier Transistors

NPN Silicon

ON Semiconductor™

http://onsemi.com





TO–92
CASE 29
STYLE 1

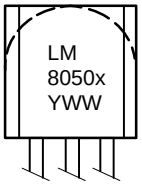
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	25	Vdc
Collector-Base Voltage	V_{CBO}	30	Vdc
Emitter-Base Voltage	V_{EBO}	6.0	Vdc
Collector Current – Continuous	I_C	800	mAdc
Total Device Dissipation @ T_A = 25°C Derate above 25°C	P_D	 625 5.0	 mW mW/°C
Total Device Dissipation @ T_C = 25°C Derate above 25°C	P_D	 1.5 12	 Watts mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	–55 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	°C/W

MARKING DIAGRAMS



LM8050x = Specific Device Code
x = I or J
Y = Year
WW = Work Week

ORDERING INFORMATION

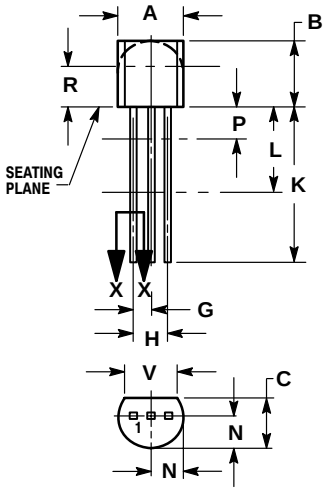
Device	Package	Shipping
LM8050I	TO–92	5000 Units/Box
LM8050J	TO–92	5000 Units/Box

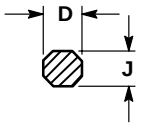
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic		Symbol	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage (I_C = 1.0 mAdc, I_B = 0)		$V_{(BR)CEO}$	25	–	–	Vdc
Collector–Base Breakdown Voltage (I_C = 0.5 mAdc, I_E = 0)		$V_{(BR)CBO}$	30	–	–	Vdc
Emitter–Base Breakdown Voltage (I_E = 0.1 mAdc, I_C = 0)		$V_{(BR)EBO}$	6.0	–	–	Vdc
Collector Cutoff Current (V_{CB} = 15 Vdc, I_E = 0)		I_{CBO}	–	–	50	nAdc
ON CHARACTERISTICS						
DC Current Gain		h_{FE}				–
(I_C = 50 mAdc, V_{CE} = 1.0 Vdc)	LM8050I		100	–	200	
	LM8050J		150	–	300	
(I_C = 350 mAdc, V_{CE} = 1.0 Vdc)			60	–	–	
Collector–Emitter Saturation Voltage (I_C = 500 mAdc, I_B = 50 mAdc)		$V_{CE(sat)}$	–	–	0.5	Vdc
Base–Emitter Saturation Voltage (I_C = 500 mAdc, I_B = 50 mAdc)		$V_{BE(sat)}$	–	–	1.2	Vdc

PACKAGE DIMENSIONS

TO−92 (TO−226)
CASE 29−11
ISSUE AL





SECTION X−X

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.
4. LEAD DIMENSION IS UNCONTROLLED IN P AND BEYOND DIMENSION K MINIMUM.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.175	0.205	4.45	5.20
B	0.170	0.210	4.32	5.33
C	0.125	0.165	3.18	4.19
D	0.016	0.021	0.407	0.533
G	0.045	0.055	1.15	1.39
H	0.095	0.105	2.42	2.66
J	0.015	0.020	0.39	0.50
K	0.500	−−−	12.70	−−−
L	0.250	−−−	6.35	−−−
N	0.080	0.105	2.04	2.66
P	−−−	0.100	−−−	2.54
R	0.115	−−−	2.93	−−−
V	0.135	−−−	3.43	−−−

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

PUBLICATION ORDERING INFORMATION

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