COMSET SEMICONDUCTORS

2N6053 PNP
2N6055 NPN

COMPLEMENTARY POWER DARLINGTON

The 2N6053 is a silicon epitaxial base PNP transistor in monolithic Darlington configuration and are mounted in Jedec TO-3 metal case.
They are intended for use in power linear and switching applications.

The complementary NPN type is the 2N6055

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
V_{CEO}	#Collector-Emitter Voltage	I_B=0	**2N6053 2N6055**	60	V
V_{CBO}	Collector-Base Voltage	I_E=0	**2N6053 2N6055**	60	V
V_{EBO}	Emitter-Base Voltage		**2N6053 2N6055**	5.0	V
I_C	Collector Current	Continuous	**2N6053 2N6055**	8.0	A
		Peak	**2N6053 2N6055**	16	
I_B	Base Current		**2N6053 2N6055**	120	mA
P_{TOT}	Total Dissipation	@ T_C = 25°	**2N6053 2N6055**	100	Watts
T_J	Junction Temperature		**2N6053 2N6055**	200	°C
T_S	Storage Temperature		**2N6053 2N6055**	-65 to +200	°C

THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJC}	Thermal Resistance, Junction to Case	**2N6053 2N6055**	1.75	°C/W

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

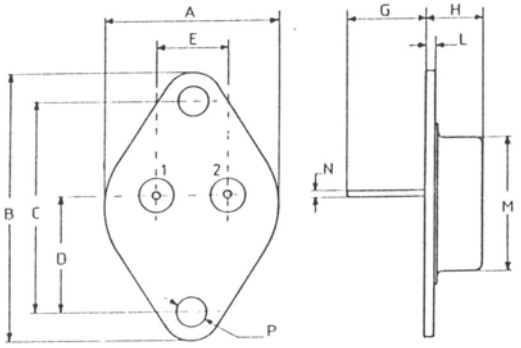
Symbol	Ratings	Test Condition(s)		Min	Typ	Mx	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (1)	I_C=100 mA	**2N6053 2N6055**	60	-	-	V
I_{CEO}	Collector-Emitter Current	V_{CE}=30 V	**2N6053 2N6055**	-	-	0.5	mA
I_{CEX}	Collector-Cutoff Current	V_{CE}=60 V, V_{BE}=-1.5 V	**2N6053 2N6055**	-	-	500	μA
		V_{CE}=60 V, V_{BE}=-1.5 V T_C=150°C	**2N6053 2N6055**	-	-	5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}=5.0 V	**2N6053 2N6055**	-	-	2.0	mA
h_{FE}	DC Current Gain (*)	I_C=4.0 A, V_{CE}=3.0 V	**2N6053 2N6055**	750	-	18K	-
		I_C=8.0 A, V_{CE}=3.0 V		100	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C=4.0 A, I_B=16 mA	**2N6053 2N6055**	-	-	2.0	V
		I_C=8.0 A, I_B=80 mA		-	-	3.0	
$V_{BE(SAT)}$	Base-Emitter Voltage (*)	I_C=8.0 A, I_B=80 mA	**2N6053 2N6055**	-	-	4.0	V
				-	-		
$V_{BE(on)}$	Base-Emitter Voltage	I_C=4.0 A, V_{CE}=3.0 V	**2N6053 2N6055**	-	-	2.8	V
f_T	Transition Frequency	V_{CE}=3.0 Vdc, I_C=3.0 Adc, f=1 MHz	**2N6053 2N6055**	4	-	-	MHz
					-	-	
C_{cbo}	Collector-base Capacitance	V_{CB}=10 V, I_E=0, f=1 MHz	**2N6053**	-	-	300	pF
			2N6055	-	-	200	

(*) Pulse Width ≈ 300 μs, Duty Cycle ∠ 2.0%
For PNP types, values are negative

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MECHANICAL DATA CASE TO-3

DIMENSIONS		
	mm	inches
A	25,51	1,004
B	38,93	1,53
C	30,12	1,18
D	17,25	0,68
E	10,89	0,43
G	11,62	0,46
H	8,54	0,34
L	1,55	0,6
M	19,47	0,77
N	1	0,04
P	4,06	0,16



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector

Information furnished is believed to be accurate and reliable. However, CS assumes no responsability for the consequences of use of such information nor for errors that could appear. Data are subject to change without notice.