

PNP 2N6053

POWER COMPLEMENTARY SILICON TRANSISTORS

The 2N6053 are silicon epitaxial-base transistors in monolithic Darlington configuration mounted in Jedec TO-3 metal case.

They are intended for use in power linear and low frequency switching applications.

The complementary NPN types are 2N6055.

Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
V _{CBO}	Collector-Base Voltage	I _E =0	2N6053	-60	V
V _{CEO}	Collector-EmitterVoltage	I _B =0	2N6053	-60	V
V _{EBO}	Emitter-Base Voltage	I _C =0		-5.0	V
I _C	Collector Current			-8	A
I _{CM}	Collector Peak Current			-16	A
I _B	Base Current			-120	mA
P _T	Power Dissipation	@ T _C < 25°		100	W
T _J	Junction			200	°C
T _s	Storage Temperature			-65 to +200	

THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case		1.17	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

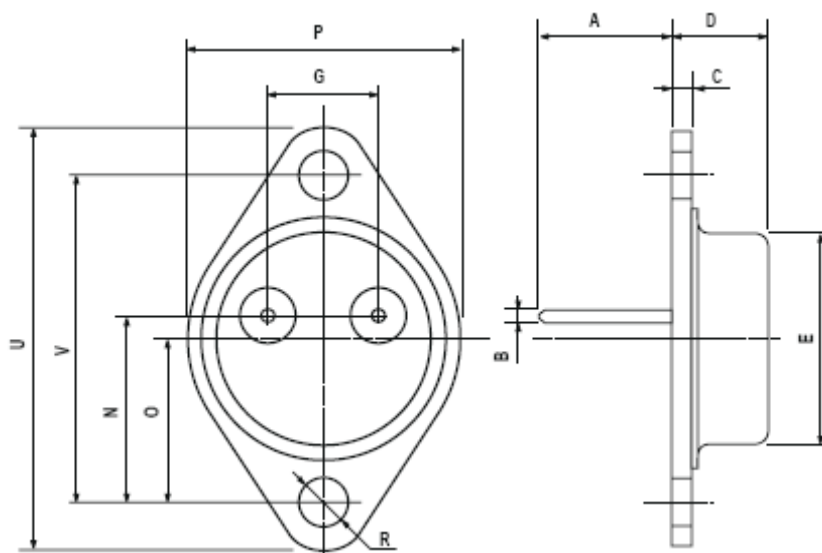
Symbol	Ratings	Test Condition(s)		Min	Typ	MAx	Unit
I_{CEX}	Collector Cutoff Current	$V_{CE} = V_{CEX} = -60 \text{ V}, V_{BE} = 1.5 \text{ V}$	2N6053	-	-	-500	μA
		$V_{CE} = V_{CEX} = -60 \text{ V}, V_{BE} = 1.5 \text{ V}$ $T_C = 150^\circ\text{C}$	2N6053	-	-	-5	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -30 \text{ Vdc}, I_B = 0$	2N6053	-	-	-0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5 \text{ V}$	2N6053	-	-	-2.0	mA
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (*)	$I_C = -0.1 \text{ A}$	2N6053	-60	-	-	V
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = -4 \text{ A}, I_B = -16 \text{ mA}$	2N6053	-	-	-2.0	V
		$I_C = -8 \text{ A}, I_B = -80 \text{ mA}$	2N6053	-	-	-3.0	
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage (*)	$I_C = -8 \text{ A}, I_B = -80 \text{ mA}$	2N6053	-	-	-4	V
$V_{BE(ON)}$	Base-Emitter Voltage (*)	$I_C = -4 \text{ A}, V_{CE} = -3 \text{ V}$	2N6053	-	-	-2.8	V
f_T	Transition Frequency	$I_C = -3 \text{ A}, V_{CE} = -3 \text{ V}, f = 1 \text{ MHz}$	2N6053	4	-	-	MHz
h_{FE}	DC Current Gain (*)	$V_{CE} = -3 \text{ V}, I_C = -4 \text{ A}$	2N6053	750	-	18000	-
		$V_{CE} = -3.0 \text{ V}, I_C = -8 \text{ A}$	2N6053	100	-	-	

(*) Pulse Width $\approx 300 \mu\text{s}$, Duty Cycle $\angle 2.0\%$

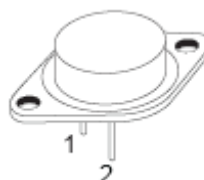
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MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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