2N6282 – 2N6283 – 2N6284

NPN SILICON DARLINGTON POWER TRANSISTOR

The 2N6282, 2N6283 and 2N6284 are mounted in TO-3 metal package.
They are designed for use in general–purpose amplifier and low–frequency switching applications.
The complementary PNP are 2N6285, 2N6286, 2N6287
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
V_{CEO}	Collector-Emitter Voltage (I_B=0)		2N6282	60	V
			2N6283	80	
			2N6284	100	
V_{CBO}	Collector-Base Voltage (I_E=0)		2N6282	60	V
			2N6283	80	
			2N6284	100	
V_{EBO}	Emitter-Base Voltage (I_C=0)		2N6282	5	V
			2N6283		
			2N6284		
I_C	Collector Current		2N6282	20	A
			2N6283		
			2N6284		
I_{CM}	Collector Peak Current		2N6282	40	
			2N6283		
			2N6284		
I_B	Base Current		2N6282	0.5	A
			2N6283		
			2N6284		
P_T	Power Dissipation	@ T_C = 25°	2N6282	160	W/℃
			2N6283		
			2N6284		
T_J	Junction Temperature		2N6282	200	℃
			2N6283		
			2N6284		
T_S	Storage Temperature		2N6282	-65 to +200	℃
			2N6283		
			2N6284		

2N6282 – 2N6283 – 2N6284

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-C}	Thermal Resistance Junction-Case	1.09	℃/W

ELECTRICAL CHARACTERISTICS

TC=25℃ unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Breakdown Voltage (*)	I_C= 200 m A I_B= 0	2N6282	60	-	-	V
			2N6283	80	-	-	
			2N6284	100	-	-	
I_{CEO}	Collector Cutoff Current	V_{CE}= 30 V, I_B= 0	2N6282	-	-	1	mA
		V_{CE}= 40 V, I_B= 0	2N6283				
		V_{CE}= 50 V, I_B= 0	2N6284				
I_{EBO}	Emitter Cutoff Current	V_{BE}= 5 V, I_C= 0	2N6282	-	-	2	mA
			2N6283				
			2N6284				
I_{CEX}	Collector Cutoff Current	V_{CE}= 60 V, V_{BE}= -1.5 V	2N6282	-	-	500	µA
		V_{CE}= 80 V, V_{BE}= -1.5 V	2N6283				
		V_{CE}= 100 V, V_{BE}= -1.5 V	2N6284				
		V_{CE}= 60 V, V_{BE}= -1.5 V T_C = 150℃	2N6282	-	-	5	mA
		V_{CE}= 80 V, V_{BE}= -1.5 V T_C = 150℃	2N6283				
		V_{CE}= 100 V, V_{BE}= -1.5 V T_C = 150℃	2N6284				
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= 10 A, I_B= 40 mA	2N6282	-	-	2	V
			2N6283				
			2N6284				
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= 20 A, I_B= 200 mA	2N6282	-	-	3	V
			2N6283				
			2N6284				
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	I_C= 20 A, I_B= 200 mA	2N6282	-	-	4	V
			2N6283				
			2N6284				
V_{BE}	Base-Emitter Voltage (*)	V_{CE}= 3 V, I_C= 10 A	2N6282	-	-	2,8	V
			2N6283				
			2N6284				

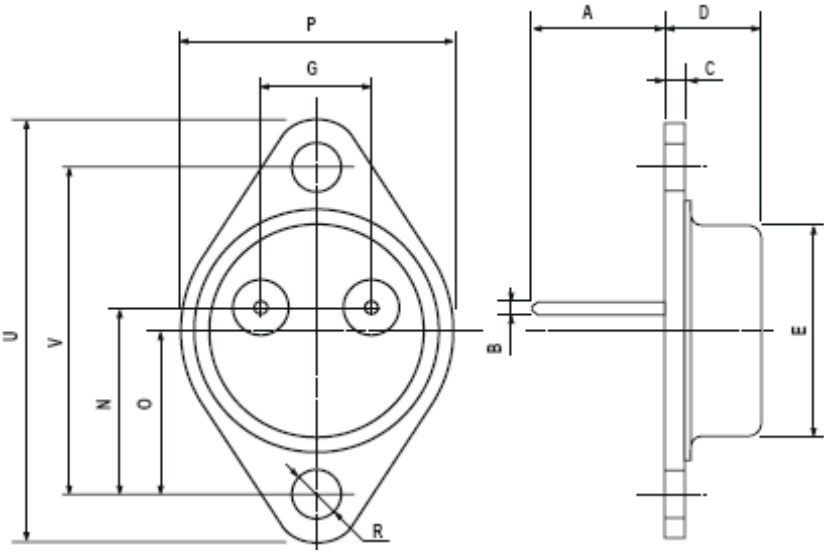
2N6282 – 2N6283 – 2N6284

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
h_{FE}	DC Current Gain (*)	V_{CE}= 3 V, I_C= 10 A	2N6282	750	-	18000	-
			2N6283				
			2N6284				
		V_{CE}= 3 V, I_C= 20 A	2N6282	100	-	-	
			2N6283				
			2N6284				
C_{OB}	Output Capacitance	I_E= 0 A, V_{CB}= 10V f= 1MHz	2N6282	-	-	400	pF
			2N6283				
			2N6284				

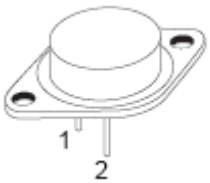
(*) Pulse Width ≈ 300 μs, Duty Cycle ∠ 2.0%

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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