

Soliton Devices, Inc.

SPECIFICATIONS

NO.: 2N3713
 TYPE: NPN EPI BASE
 CASE: TO-3

MAXIMUM RATINGS

Voltage, Collector to Base (V_{CBO})	80	V
Voltage, Collector to Emitter (V_{CEO})	60	V
Voltage, Emitter to Base (V_{EBO})	7.0	V
Collector Current (I_C)	10	A
Base Current (I_B)	4.0	A
Maximum Thermal Resistance, Junction to Case	1.17	$^{\circ}C/W$
Maximum Junction Temperature	-65 $^{\circ}C$ TO +200 $^{\circ}C$	
Power of Transistor (P_T) $T_C = 100^{\circ}C$	85	WATTS
POWER OF TRANSISTOR (P_T) $T_C = 25^{\circ}C$	150	WATTS

TA = 25 $^{\circ}C$		PERFORMANCE CHARACTERISTICS			UNLESS OTHERWISE NOTED	
NO.	SYMBOL	CONDITIONS		MIN.	MAX.	UNITS
1	$V_{CE(SUS)}^*$	$I_C = 200MA$		60		V
2	I_{CEO}	$V_{CE} = 30V$			700	μA
3	I_{EBO}	$V_{EB} = 7.0V$			1.0	MA
4	I_{CEX1}	$V_{CE} = 80V$	$V_{EB} = 1.5V$		1.0	MA
5	h_{FE1}^*	$I_C = 10A$	$V_{CE} = 4.0V$	5.0		
6	h_{FE2}^*	$I_C = 1.0A$	$V_{CE} = 2.0V$	25	75	
7	h_{FE3}^*	$I_C = 3.0A$	$V_{CE} = 2.0V$	15		
8	$V_{CE(S)1}^*$	$I_C = 5.0A$	$I_B = 500MA$		1.0	V
9	$V_{CE(S)2}^*$	$I_C = 10A$	$I_B = 2.0A$		4.0	V
10	$V_{BE(ON)1}^*$	$I_C = 5.0A$	$V_{CE} = 2.0V$		2.0	V
11	$V_{BE(ON)2}^*$	$I_C = 10A$	$V_{CE} = 4.0V$		4.0	V
12	I_{CEX2}	$V_{CE} = 60V$	$V_{EB} = 1.5V$ $T_C = 150^{\circ}C$		10	MA
13	$ h_{fe} $	$I_C = 500MA$	$V_{CE} = 10V$ $f = 1.0MHZ$	4.0		
14	h_{fe}	$I_C = 500MA$	$V_{CE} = 10V$ $f = 1.0KHZ$	25	250	
15	h_{fe}	$I_C = 500MA$	$V_{CE} = 10V$	30		KHZ
16	C_{OBO}	$I_C = 0$	$V_{CB} = 10V$ $f = 100KHZ$		250	PF
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18						
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NOTES: *PULSED: P.W. = $\leq 300 \mu SEC$; D.C. = $\leq 2.0\%$
 JEDEC: 5031/5031D

Customer: GENERAL PURPOSE

2/1/63
 J.F.D.

