



COMSET

SEMICONDUCTORS

BDY26, 183 T2

BDY27, 184 T2

BDY28, 185 T2

NPN SILICON TRANSISTORS, DIFFUSED MESA

LF Large Signal Power Amplification
High Current Fast Switching

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit	
V_{CEO}	Collector-Emitter Voltage	BDY26, 183T2	180	V	
		BDY27, 184T2	200		
		BDY28, 185T2	250		
V_{CBO}	Collector-Base Voltage	BDY26, 183T2	300	V	
		BDY27, 184T2	400		
		BDY28, 185T2	500		
V_{EBO}	Emitter-Base Voltage	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	10	V	
I_C	Collector Current	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	6	A	
I_B	Base Current	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	3	A	
P_{TOT}	Power Dissipation	@ $T_C = 25^\circ$	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	87.5	Watts
T_J	Junction Temperature		BDY26, 183T2 BDY27, 184T2	-65 to +200	°C
T_S	Storage Temperature		BDY28, 185T2		



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THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	2 °C/W

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit	
$V_{CEO(BR)}$	Collector-Emitter Breakdown Voltage (*)	$I_C=50\text{ mA}, I_B=0$	BDY26, 183T2	180	-	-	V
			BDY27, 184T2	200	-	-	
			BDY28A, 185T2A	250	-	-	
			BDY28B, 185T2B	250	-	-	
			BDY28C, 185T2C	220	-	-	
I_{CEO}	Collector-Emitter Cutoff Current	$V_{CE}=180\text{ V}$	BDY26	-	-	1.0 mA	
		$V_{CE}=200\text{ V}$	BDY27	-	-		
		$V_{CE}=250\text{ V}$	BDY28	-	-		
I_{EBO}	Emitter-Base Cutoff Current	$V_{EB}=10\text{ V}$	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	-	-	1.0 mA	
I_{CES}	Collector-Emitter Cutoff Current	$V_{CE}=250\text{ V}$ $V_{BE}=0\text{ V}$	BDY26, 183T2	-	-	1.0 mA	
		$V_{CE}=300\text{ V}$ $V_{BE}=0\text{ V}$	BDY27, 184T2	-	-		
		$V_{CE}=400\text{ V}$ $V_{BE}=0\text{ V}$	BDY28, 185T2	-	-		



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$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C=2.0\text{ A}, I_B=0.25\text{ A}$	BDY26, 183T2	-	-	0.6	V
			BDY27, 184T2	-	-		
			BDY28, 185T2	-	-		
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (*)	$I_C=3\text{ mA}$	BDY26, 183T2	300	-	-	V
			BDY27, 184T2	400	-	-	
			BDY28, 185T2	500	-	-	
$V_{BE(SAT)}$	Base-Emitter Voltage (*)	$I_C=2.0\text{ A}, I_B=0.25\text{ A}$	BDY26, 183T2	-	-	1.2	V
			BDY27, 184T2	-	-		
			BDY28, 185T2	-	-		
h_{21E}	Static Forward Current transfer ratio (*)	$V_{CE}=4\text{ V}, I_C=1\text{ A}$	A	-	55	-	-
			B	-	65	-	
			C	-	90	-	
		$V_{CE}=4\text{ V}, I_C=2\text{ A}$	A	15	20	45	
			B	30	45	90	
			C	75	82	180	
f_T	Transition Frequency	$V_{CE}=15\text{ V}, I_C=0.5\text{ A}, f=10\text{ MHz}$	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	10	-	-	MHz
$t_d + t_r$	Turn-on time	$I_C=5\text{ A}, I_B=1\text{ A}$	BDY26, 183T2 BDY27, 184T2 BDY28, 185T2	-	-	1	μs
$t_s + t_f$	Turn-off time	$I_C=5\text{ A}, I_{B1}=1\text{ A}, I_{B2}=-1\text{ A}$	A B C	-	-	2 3.5 6	μs

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



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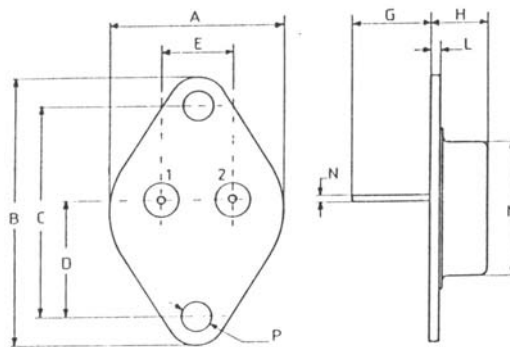
BDY26, 183 T2

BDY27, 184 T2

BDY28, 185 T2

MECHANICAL DATA

DIMENSIONS	
	mm
A	25,45
B	38,8
C	30,09
D	17,11
E	9,78
G	11,09
H	8,33
L	1,62
M	19,43
N	1
P	4,08



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector