2N3583
2N3584
2N3585

NPN SILICON TRANSISTOR

TO-66 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3583 Series types are NPN Silicon Transistors designed for high speed switching and high voltage amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**	**2N3583**	**2N3584**	**2N3585**	**UNITS**
Collector-Base Voltage	V_{CBO}	250	375	500	V
Collector-Emitter Voltage	V_{CEO}	175	250	300	V
Emitter-Base Voltage	V_{EBO}	6.0	6.0	6.0	V
Continuous Collector Current	I_C	1.0	2.0	2.0	A
Peak Collector Current	I_{CM}		5.0		A
Continuous Base Current	I_B		1.0		A
Power Dissipation	P_D		35		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +200		°C
Thermal Resistance	Θ_{JC}		5.0		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

		2N3583		**2N3584**		**2N3585**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=225V, V_{EB}=1.5V	-	1.0	-	-	-	-	mA
I_{CEV}	V_{CE}=340V, V_{EB}=1.5V	-	-	-	1.0	-	-	mA
I_{CEV}	V_{CE}=450V, V_{EB}=1.5V	-	-	-	-	-	1.0	mA
I_{CEV}	V_{CE}=225V, V_{EB}=1.5V, T_C=150°C	-	3.0	-	-	-	-	mA
I_{CEV}	V_{CE}=300V, V_{EB}=1.5V, T_C=150°C	-	-	-	3.0	-	3.0	mA
I_{CEO}	V_{CE}=150V	-	10	-	5.0	-	5.0	mA
I_{EBO}	V_{BE}=6.0V	-	5.0	-	0.5	-	0.5	mA
BV_{CEO}	I_C=200mA	175	-	250	-	300	-	V
$V_{CE(SAT)}$	I_C=1.0A, I_B=125mA	-	5.0	-	0.75	-	0.75	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=100mA	-	-	-	1.4	-	1.4	V
$V_{BE(ON)}$	V_{CE}=10V, I_C=1.0A	-	1.4	-	1.4	-	1.4	V
h_{FE}	V_{CE}=10V, I_C=100mA	40	-	40	-	40	-	
h_{FE}	V_{CE}=10V, I_C=500mA	40	200	-	-	-	-	
h_{FE}	V_{CE}=2.0V, I_C=1.0A	-	-	8.0	80	8.0	80	
h_{FE}	V_{CE}=10V, I_C=1.0A	10	-	25	100	25	100	
f_T	V_{CE}=10V, I_C=200mA, f=5.0MHz	10	-	10	-	10	-	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz	-	120	-	120	-	120	pF
h_{fe}	V_{CE}=30V, I_C=100mA, f=1.0kHz	25	350	-	-	-	-	
t_r	V_{CC}=200V, I_C=1.0A, I_{B1}=100mA, R_L=200Ω	-	-	-	3.0	-	3.0	μs
t_s	V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=100mA	-	-	-	4.0	-	4.0	μs
t_f	V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=100mA	-	-	-	3.0	-	3.0	μs
$I_{s/b}$	V_{CE}=100V	350	-	350	-	350	-	mA

R2 (22-June 2011)

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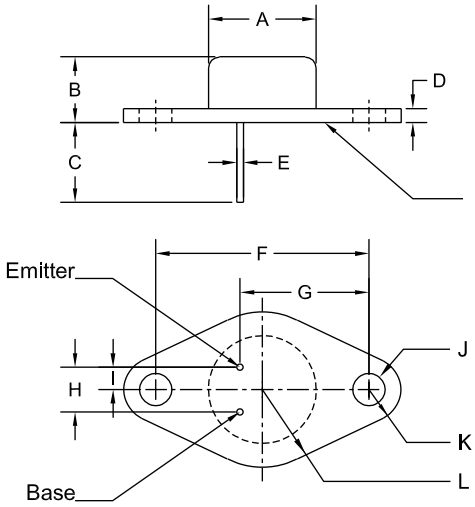
TO-66 CASE - MECHANICAL OUTLINE



Seating Plane:
The seating plane must be within 0.001" concave to 0.004" convex within 0.600" diameter from the center of the device.

R2

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.958	0.962	24.33	24.43
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.145		3.68	
L (RAD)	0.350		8.89	

TO-66 (REV:R2)