

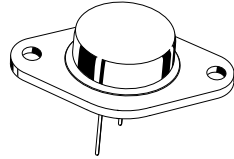
2N3766  
2N3767

**NPN SILICON  
POWER TRANSISTOR**

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N3766, 2N3767 types are silicon NPN power transistors manufactured by the epitaxial base process designed for power amplifier and medium speed switching applications.



**TO-66 CASE**

**MARKING CODE: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

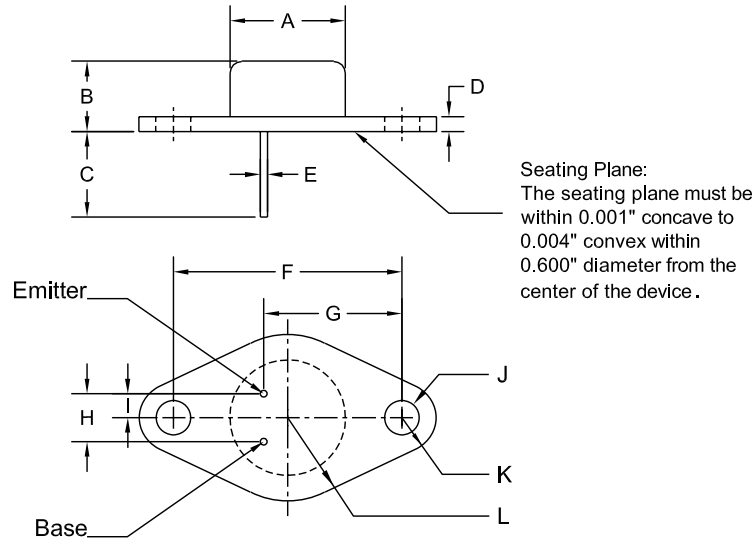
	SYMBOL	2N3766	2N3767	UNITS
Collector-Base Voltage	$V_{CBO}$	80	100	V
Collector-Emitter Voltage	$V_{CEO}$	60	80	V
Emitter-Base Voltage	$V_{EBO}$		6.0	V
Collector Current	$I_C$		4.0	A
Base Current	$I_B$		2.0	A
Power Dissipation	$P_D$		25	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +200		$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$		7.0	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CBO}, V_{BE}=1.5\text{V}$		10	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=\text{Rated } V_{CBO}$		10	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=\text{Rated } V_{CEO}$		500	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=6.0\text{V}$		500	$\mu\text{A}$
$BV_{CEO}$	$I_C=100\text{mA}$ (2N3766)	60		V
$BV_{CEO}$	$I_C=100\text{mA}$ (2N3767)	80		V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.0	V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		2.5	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$		1.5	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=50\text{mA}$	30		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=500\text{mA}$	40	160	
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$	20		
$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=10\text{MHz}$	10		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_C=0, f=100\text{KHz}$		50	pF

R1 (25-October 2007))

TO-66 CASE - MECHANICAL OUTLINE



R2

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)

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