

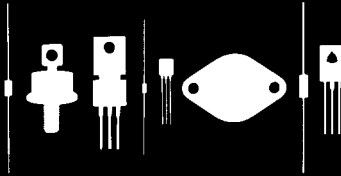
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145 Adams Avenue  
Hauppauge, New York 11788



2N3766

2N3767

NPN SILICON POWER TRANSISTOR

JEDEC TO-66 CASE

#### 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.

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

	SYMBOL	2N3766	2N3767	UNIT
Collector-Base Voltage	$V_{CB0}$	80	100	V
Collector-Emitter Voltage	$V_{CE0}$	60	80	V
Emitter-Base Voltage	$V_{EB0}$	6.0		V
Collector Current	$I_C$	4.0		A
Base Current	$I_B$	2.0		A
Power Dissipation	$P_D$	20		W
Operating and Storage				
Junction Temperature	$T_J, T_{STG}$	-65 to +200		$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	8.75		$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N3766		2N3767		UNIT
		MIN	MAX	MIN	MAX	
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CB0}, V_{BE}=1.5\text{V}$		0.1	0.1	mA	
$I_{CEV}$	$V_{CE}=50\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$		1.0	-	mA	
$I_{CEV}$	$V_{CE}=70\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$		-	1.0	mA	
$I_{CB0}$	$V_{CB}=\text{Rated } V_{CB0}$		0.1	0.1	mA	
$I_{CE0}$	$V_{CE}=\text{Rated } V_{CE0}$		0.7	0.7	mA	
$I_{EB0}$	$V_{EB}=6.0\text{V}$		0.75	0.75	mA	
$BV_{CE0}$	$I_C=100\text{mA}$	60		80	V	
$V_{CE(\text{SAT})}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.0	1.0	V	
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=0.1\text{A}$		2.5	2.5	V	
$V_{BE(\text{ON})}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$		1.5	1.5	V	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=50\text{mA}$	30	-	30	-	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=500\text{mA}$	40	160	40	160	
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$	20	-	20	-	
$h_{fe}$	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=1.0\text{kHz}$	40	-	40	-	
$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=10\text{MHz}$	10		10	MHz	
$C_{ob}$	$V_{CB}=10\text{V}, I_C=0, f=100\text{kHz}$		50	50	pF	

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