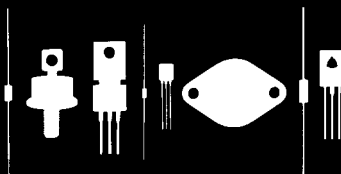


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145 Adams Avenue
Hauppauge, New York 11788



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	θ_{JC}	8.75		$^{\circ}\text{C/W}$

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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