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2N3766
2N3767

NPN SILICON POWER TRANSISTOR

JEDEC TO-66 CASE

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°C unless otherwise noted)

	SYMBOL	2N3766	2N3767	UNIT
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	20		W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 to +200		°C
Thermal Resistance	Θ_{JC}	8.75		°C/W

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

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