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Manufacturers of World Class Discrete Semiconductors

MPQ2906
MPQ2907

PNP SILICON QUAD TRANSISTOR

JEDEC TO-116 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPQ2906, MPQ2907 types are comprised of four independent Silicon Transistors mounted in a 14 PIN DIP, designed for general purpose amplifier and switching applications.

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

	SYMBOL		UNIT
Collector Base Voltage	V_{CB0}	60	V
Collector Emitter Voltage	V_{CE0}	40	V
Emitter Base Voltage	V_{EB0}	5.0	V
Collector Current	I_C	600	mA
Power Dissipation	P_D (EACH TRANSISTOR)	650	mW
Power Dissipation	P_D (TOTAL PACKAGE)	2000	mW
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +150	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CB0}	$V_{CB}=30\text{V}$		50	nA
I_{EB0}	$V_{EB}=3.0\text{V}$		50	nA
BV_{CB0}	$I_C=10\mu\text{A}$	60		V
BV_{CE0}	$I_C=10\text{mA}$	40		V
BV_{EB0}	$I_E=10\mu\text{A}$	5.0		V
$V_{CE}(\text{SAT})$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.4	V
$V_{CE}(\text{SAT})$	$I_C=300\text{mA}, I_B=30\text{mA}$		1.6	V
$V_{BE}(\text{SAT})$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.3	V
$V_{BE}(\text{SAT})$	$I_C=300\text{mA}, I_B=30\text{mA}$		2.6	V
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$ (MPQ2906)	35	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$ (MPQ2907)	75	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$ (MPQ2906)	40	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$ (MPQ2907)	100	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=300\text{mA}$ (MPQ2906)	30	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=300\text{mA}$ (MPQ2907)	50	-	
f_T	$V_{CE}=20\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	200		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		8.0	pF
C_{ib}	$V_{BE}=2.0\text{V}, I_C=0, f=100\text{kHz}$		30	pF
t_{on}	$V_{CC}=30\text{V}, I_C=150\text{mA}, I_{B1}=15\text{mA}$		30TYP	ns
t_{off}	$V_{CC}=6.0\text{V}, I_C=150\text{mA}, I_{B1}=I_{B2}=15\text{mA}$		150TYP	ns

