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2N5814 2N5816 2N5818 NPN
2N5815 2N5817 2N5819 PNP

COMPLEMENTARY SILICON TRANSISTORS

TO-92-18R CASE

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CES}	50	V
Collector Emitter Voltage	V_{CEO}	40	V
Emitter Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	750	mA
Collector Current (PEAK)	I_{CM}	1000	mA
Power Dissipation	P_D	625	mW
Power Dissipation (T_C=25°C)	P_D	1500	mW
Operating and Storage Junction Temperature	T_J,Tstg	-65 TO +150	°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	V_{CB}=25V		100	nA
I_{CBO}	V_{CB}=25V, T_A=100°C		15	µA
I_{EBO}	V_{EB}=5.0V		10	µA
BV_{CES}	I_C=10µA	50		V
BV_{CEO}	I_C=10mA	40		V
BV_{EBO}	I_E=10µA	5.0		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.75	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		1.2	V
$V_{BE(ON)}$	V_{CE}=2.0V, I_C=500mA	0.60	1.1	V
h_{FE}	V_{CE}=2.0V, I_C=2.0mA(2N5814,2N5815)	60	120	
h_{FE}	V_{CE}=2.0V, I_C=2.0mA(2N5816,2N5817)	100	200	
h_{FE}	V_{CE}=2.0V, I_C=2.0mA(2N5818,2N5819)	150	300	
h_{FE}	V_{CE}=2.0V, I_C=500mA(2N5814,2N5815)	20	-	
h_{FE}	V_{CE}=2.0V, I_C=500mA(2N5816,2N5817)	25	-	
h_{FE}	V_{CE}=2.0V, I_C=500mA(2N5818,2N5819)	25	-	
f_T	V_{CE}=2.0V, I_C=50mA, f=20MHz(2N5814,2N5815)	100		MHz
f_T	V_{CE}=2.0V, I_C=50mA, f=20MHz(2N5816,2N5817)	120		MHz
f_T	V_{CE}=2.0V, I_C=50mA, f=20MHz(2N5818,2N5819)	135		MHz
C_{ob}	V_{CB}=10V, f=1.0MHz		15	pF
C_{ib}	V_{EB}=0.5V, f=1.0MHz		55	pF