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2N5820 2N5822 NPN
2N5821 2N5823 PNP

COMPLEMENTARY SILICON TRANSISTORS

TO-92-18R CASE (CBE)

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

	SYMBOL		UNIT
Collector-Base Voltage	V_{CBO}	70	V
Collector-Emitter Voltage	V_{CES}	70	V
Collector-Emitter Voltage	V_{CEO}	60	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, T_{STG}	-65 to +150	°C
Thermal Resistance	ΘJA	200	°C/mW
Thermal Resistance	ΘJC	83.3	°C/mW

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

SYMBOL	TEST CONDITIONS	2N5820 2N5821 MIN	2N5820 2N5821 MAX	2N5822 2N5823 MIN	2N5822 2N5823 MAX	UNIT
I_{CBO}	V_{CB}=25V		100		100	nA
I_{CBO}	V_{CB}=25V, T_A=100°C		15		15	µA
I_{EBO}	V_{EB}=5.0V		10		10	µA
BV_{CES}	I_C=10µA	70		70		V
BV_{CEO}	I_C=10mA	60		60		V
BV_{EBO}	I_E=10µA	5.0		5.0		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.75		0.75	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		1.2		1.2	V
$V_{BE(ON)}$	V_{CB}=2.0V, I_C=500mA	0.60	1.1	0.60	1.1	V
h_{FE}	V_{CE}=2.0V, I_C=2.0mA	60	120	100	200	
h_{FE}	V_{CE}=2.0V, I_C=500mA	20	-	25	-	
f_T	V_{CE}=2.0V, I_C=50mA, f=20MHz	100	-	120	-	MHz
C_{ob}	V_{CB}=10V, I_C=0, f=1.0MHz		15		15	pF
C_{ib}	V_{EB}=0.5V, I_E=0, f=1.0MHz		55		55	pF