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2N5679 2N5680 PNP
2N5681 2N5682 NPN

COMPLEMENTARY SILICON
HIGH POWER TRANSISTORS

JEDEC TO-39 CASE

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

	SYMBOL	2N5679 2N5681		2N5680 2N5682	UNITS
Collector-Base Voltage	V_{CBO}	100		120	V
Collector-Emitter Voltage	V_{CEO}	100		120	V
Emitter-Base Voltage	V_{EBO}		4.0		V
Collector Current	I_C		1.0		A
Base Current	I_B		0.5		A
Power Dissipation	P_D		1.0		W
Power Dissipation(T_C=25°C)	P_D		10		W
Operating and Storage Junction Temperature	T_J,T_{stg}		-65 to +200		°C
Thermal Resistance	Θ_{JA}		175		°C/W
Thermal Resistance	Θ_{JC}		17.5		°C/W

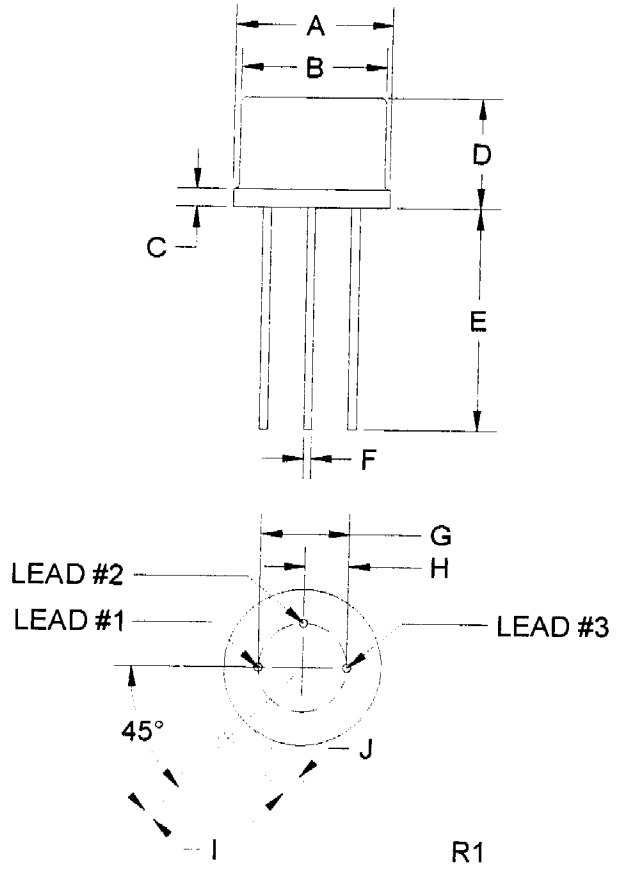
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

		2N5679 2N5681		2N5680 2N5682		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}= Rated V_{CBO}		1.0		1.0	μA
I_{CEV}	V_{CE}= Rated V_{CEO}, V_{EB}=1.5V		1.0		1.0	μA
I_{CEV}	V_{CE}= Rated V_{CEO}, V_{EB}=1.5V, T_C=150°C		1.0		1.0	mA
I_{CEO}	V_{CE}=70V		10		---	μA
I_{CEO}	V_{CE}=80V		---		10	μA
I_{EBO}	V_{EB}=4.0V		1.0		1.0	μA
BV_{CEO}	I_C=10mA	100		120		V
$V_{CE(SAT)}$	I_C=250mA, I_B=25mA		0.6		0.6	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		1.0		1.0	V
$V_{CE(SAT)}$	I_C=1.0A, I_B=200mA		2.0		2.0	V
$V_{BE(ON)}$	V_{CE}=2.0V, I_C=250mA		1.0		1.0	V
h_{FE}	V_{CE}=2.0V, I_C=250mA	40	150	40	150	
h_{FE}	V_{CE}=2.0V, I_C=1.0A	5.0		5.0		

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

SYMBOL	TEST CONDITIONS	2N5679 2N5681 MIN	2N5679 2N5681 MAX	2N5680 2N5682 MIN	2N5680 2N5682 MAX	UNITS
h_{fe}	V_{CE}=1.5V, I_C=0.2A, f=1.0kHz	40		40		
f_T	V_{CE}=10V, I_C=100mA, f=10MHz	30		30		MHz
C_{ob}	V_{CB}=20V, I_E=0, f=1.0MHz		50		50	pF

TO-39 PACKAGE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)