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2N6294 2N6295 NPN
2N6296 2N6297 PNP

COMPLEMENTARY SILICON DARLINGTON
POWER TRANSISTORS

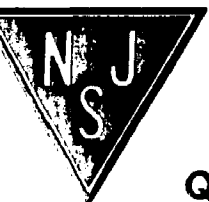
JEDEC TO-66 CASE

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

	SYMBOL	2N6294 2N6296	2N6295 2N6297	UNIT
Collector-Base Voltage	V_{CB0}	60	80	V
Collector-Emitter Voltage	V_{CE0}	60	80	V
Emitter-Base Voltage	V_{EBO}		5.0	V
Collector Current	I_C		4.0	A
Collector Current-Peak	I_{CM}		8.0	A
Base Current	I_B		80	mA
Power Dissipation	P_D		50	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 to +200		$^\circ\text{C}$
Thermal Resistance	θ_{JC}	3.5		$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N6294 2N6296		2N6295 2N6297		UNIT
		MIN	MAX	MIN	MAX	
I_{CEV}	$V_{CE}=\text{Rated } V_{CB0}, V_{EB}(\text{OFF})=1.5\text{V}$		0.5		0.5	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CB0}, V_{EB}(\text{OFF})=1.5\text{V}, T_C=150^\circ\text{C}$		5.0		5.0	mA
I_{CE0}	$V_{CE}=\frac{1}{2}\text{Rated } V_{CE0}$		0.5		0.5	mA
I_{EBO}	$V_{BE}=5.0\text{V}$		2.0		2.0	mA
BV_{CE0}	$I_C=50\text{mA}$	60		80		V
$V_{CE}(\text{SAT})$	$I_C=2.0\text{A}, I_B=8.0\text{mA}$		2.0		2.0	V
$V_{CE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=40\text{mA}$		3.0		3.0	V
$V_{BE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=40\text{mA}$		4.0		4.0	V
$V_{BE}(\text{ON})$	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$		2.8		2.8	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$	750	18K	750	18K	
h_{FE}	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$	100	-	100	-	
h_{fe}	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}, f=1.0\text{kHz}$	300	-	300	-	
f_T	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}, f=1.0\text{MHz}$	4.0		4.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (NPN Types)		120		120	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (PNP Types)		200		200	pF



NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors