Central™
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Manufacturers of World Class Discrete Semiconductors
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2N3762
2N3763

PNP SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3762 and 2N3763 types are Silicon PNP Epitaxial Planar Transistors designed for core driver applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N3762	2N3763	UNITS
Collector-Base Voltage	V_{CBO}	40	60	V
Collector-Emitter Voltage	V_{CEO}	40	50	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Collector Current	I_C	1.5		A
Power Dissipation	P_D	1.0		W
Power Dissipation (T_C=25°C)	P_D	4.0		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}	44		°C/W

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

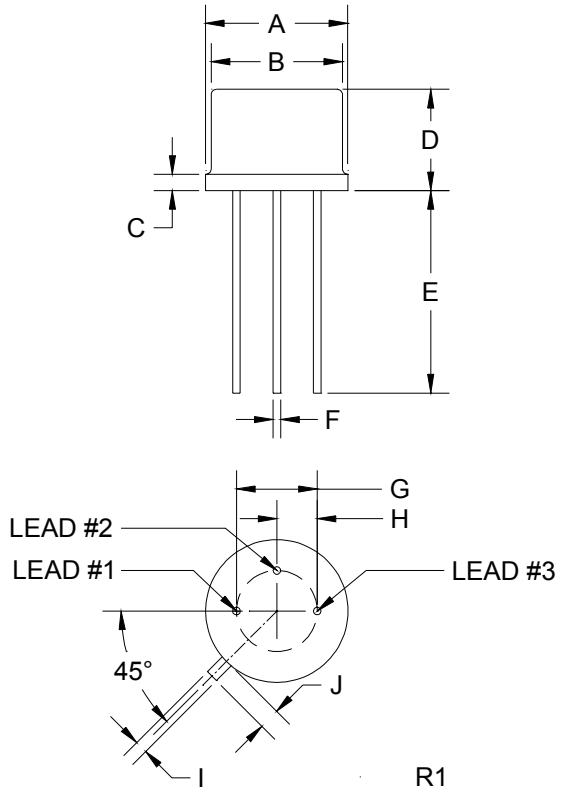
		2N3762		2N3763		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{BL}	V_{CE}=½Rated V_{CBO}, V_{EB}=2.0V		200		200	nA
I_{CEV}	V_{CE}=½Rated V_{CBO}, V_{EB}=2.0V		100		100	nA
I_{CEV}	V_{CB}=½Rated V_{CBO}, V_{EB}=2.0V. T_A=100°C		10		10	μA
BV_{CBO}	I_C=10μA	40		60		V
BV_{CEO}	I_C=10mA	40		50		V
BV_{EBO}	I_E=10μA	5.0		5.0		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.10		0.10	V
$V_{CE(SAT)}$	I_C=150mA, I_B=15mA		0.22		0.22	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.50		0.50	V
$V_{CE(SAT)}$	I_C=1.0A, I_B=100mA		0.90		0.90	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.80		0.80	V
$V_{BE(SAT)}$	I_C=150mA, I_B=15mA		1.00		1.00	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		1.20		1.20	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=100mA	0.90	1.40	0.90	1.40	V

(CONTINUED ON REVERSE SIDE)

ELECTRICAL CHARACTERISTICS (Continued)

SYMBOL	TEST CONDITIONS	2N3762 MIN	2N3762 MAX	2N3763 MIN	2N3763 MAX	UNITS
h_{FE}	V_{CE}=1.0V, I_C=10mA	35		35		
h_{FE}	V_{CE}=1.0V, I_C=150mA	40		40		
h_{FE}	V_{CE}=1.0V, I_C=500mA	35		35		
h_{FE}	V_{CE}=1.5V, I_C=1.0A	20	80	30	120	
h_{FE}	V_{CE}=5.0V, I_C=1.5A	20		30		
$\|h_{fe}\|$	V_{CE}=10V, I_C=50mA, f=100MHz	1.8		1.5		
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz		15		15	pF
C_{ib}	V_{BE}=0.5V, I_C=0, f=100kHz		80		80	pF
t_d	V_{CC}=30V, $V_{BE(off)}$=2.0V, I_C=1.0A, I_{B1}=100mA		8.0		8.0	ns
t_r	V_{CC}=30V, $V_{BE(off)}$=2.0V, I_C=1.0A, I_{B1}=100mA		3.5		3.5	ns
t_s	V_{CC}=30V, I_C=1.0A, I_{B1}=-I_{B2}=100mA		80		80	ns
t_f	V_{CC}=30V, I_C=1.0A, I_{B1}=-I_{B2}=100mA		35		35	ns
Q_τ	V_{CC}=30V, I_C=1.0A, I_B=100mA		30		30	pC

JEDEC 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)

LEAD CODE:

1. Emitter
2. Base
3. Collector

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