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Manufacturers of World Class Discrete Semiconductors

2N6211
2N6212
2N6213

PNP SILICON
POWER TRANSISTOR

JEDEC TO-66 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6211 series types are PNP Silicon Power Transistors designed for high speed switching and high voltage amplifier applications.

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

	SYMBOL	2N6211	2N6212	2N6213	UNITS
Collector-Base Voltage	V_{CBO}	275	350	400	V
Collector-Emitter Voltage	V_{CEO}	225	300	350	V
Emitter-Base Voltage	V_{EBO}	6.0	6.0	6.0	V
Collector Current	I_C	2.0	2.0	2.0	A
Peak Collector Current	I_{CM}	5.0	5.0	5.0	A
Base Current	I_B	1.0	1.0	1.0	A
Power Dissipation	P_D	35	35	35	W
Operating and Storage					
Junction Temperature	T_J, T_{stg}	-65 to +200			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	5.0	5.0	5.0	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N6211		2N6212		2N6213		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CEV}	$V_{CE} = 250\text{V}, V_{BE(\text{off})} = 1.5\text{V}$		0.5					mA
I_{CEV}	$V_{CE} = 315\text{V}, V_{BE(\text{off})} = 1.5\text{V}$				0.5			mA
I_{CEV}	$V_{CE} = 360\text{V}, V_{BE(\text{off})} = 1.5\text{V}$						0.5	mA
I_{CEV}	$V_{CE} = 250\text{V}, V_{BE(\text{off})} = 1.5\text{V}, T_C = 100^\circ\text{C}$		5.0					mA
I_{CEV}	$V_{CE} = 315\text{V}, V_{BE(\text{off})} = 1.5\text{V}, T_C = 100^\circ\text{C}$				5.0			mA
I_{CEV}	$V_{CE} = 360\text{V}, V_{BE(\text{off})} = 1.5\text{V}, T_C = 100^\circ\text{C}$						5.0	mA
I_{CEO}	$V_{CE} = 150\text{V}$		5.0		5.0		5.0	mA
I_{EBO}	$V_{EB} = 6.0\text{V}$		1.0		0.5		0.5	mA
BV_{CEV}	$I_C = 50\text{mA}, V_{BE} = 1.5\text{V}, L = 10\text{mH}$	275		350		400		V
BV_{CER}	$I_C = 50\text{mA}, R_{BE} = 50\Omega$	250		325		375		V
BV_{CEO}	$I_C = 50\text{mA}$	225		300		350		V
BV_{EBO}	$I_E = 1.0\text{mA}$	6.0						V
BV_{EBO}	$I_E = 0.5\text{mA}$			6.0		6.0		V
$V_{CE(\text{SAT})}$	$I_C = 1.0\text{A}, I_B = 125\text{mA}$		1.4		1.6		2.0	V
$V_{BE(\text{SAT})}$	$I_C = 1.0\text{A}, I_B = 125\text{mA}$		1.4		1.4		1.4	V
h_{FE}	$V_{CE} = 2.8\text{V}, I_C = 1.0\text{A}$	10	100					
h_{FE}	$V_{CE} = 3.2\text{V}, I_C = 1.0\text{A}$			10	100			
h_{FE}	$V_{CE} = 4.0\text{V}, I_C = 1.0\text{A}$					10	100	

(CONTINUED ON REVERSE SIDE)

ELECTRICAL CHARACTERISTICS (CONTINUED)

SYMBOL	TEST CONDITIONS	2N6211		2N6212		2N6213		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
f_T	$V_{CE} = 10V, I_C = 200mA, f = 5.0MHz$	20		20		20		MHz
C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1.0MHz$		220		220		220	pF
t_r	$V_{CC} = 200V, I_C = 1.0A, I_{B1} = I_{B2} = 125mA$		0.6		0.6		0.6	μs
t_s	$V_{CC} = 200V, I_C = 1.0A, I_{B1} = I_{B2} = 125mA$		2.5		2.5		2.5	μs
t_f	$V_{CC} = 200V, I_C = 1.0A, I_{B1} = I_{B2} = 125mA$		0.6		0.6		0.6	μs
$I_{S/b}$	$V_{CE} = 40V, t = 1.0s$	875		875		875		mA

TO-66 CASE - MECHANICAL OUTLINE

All Dimensions in Inches (mm).

