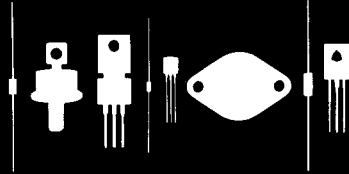


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2N5671
2N5672

NPN SILICON TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5671, 2N5672 types are silicon NPN high power transistors manufactured by the epitaxial planar process, designed for switching and amplifier applications.

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

	SYMBOL	2N5671	2N5672	UNIT
Collector-Base Voltage	V_{CB0}	120	150	V
Collector-Emitter Voltage	V_{CEO}	90	120	V
Collector-Emitter Voltage	V_{CER}	110	140	V
Collector-Emitter Voltage ($V_{BE}=1.5\text{V}$)	V_{CEV}	120	150	V
Emitter-Base Voltage	V_{EBO}		7.0	V
Collector Current	I_C		30	A
Base Current	I_B		10	A
Power Dissipation	P_D		140	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +200		$^\circ\text{C}$
Thermal Resistance	θ_{JC}	1.25		$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N5671		2N5672		UNIT
		MIN	MAX	MIN	MAX	
I_{CEO}	$V_{CE}=80\text{V}$		10		10	mA
I_{CEV}	$V_{CE}=110\text{V}, V_{BE}=1.5\text{V}$		12		-	mA
I_{CEV}	$V_{CE}=135\text{V}, V_{BE}=1.5\text{V}$		-		10	mA
I_{CEV}	$V_{CE}=100\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$		15		10	mA
I_{EBO}	$I_C=7.0\text{V}$		10		10	mA
BV_{CEO}	$I_C=0.2\text{A}$	90		120		V
BV_{CER}	$I_C=0.2\text{A}, R_{BE}=50\Omega$	110		140		V
BV_{CEX}	$I_C=0.2\text{A}, V_{BE}=1.5\text{V}, R_{BE}=50\Omega$	120		150		V
$V_{CE(SAT)}$	$I_C=15\text{A}, I_B=1.2\text{A}$		0.75		0.75	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=15\text{A}$		1.6		1.6	V
$V_{BE(SAT)}$	$I_C=15\text{A}, I_B=1.2\text{A}$		1.5		1.5	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=15\text{A}$	20	100	20	100	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=20\text{A}$	20	-	20	-	
f_T	$V_{CE}=10\text{V}, I_C=2.0\text{A}$	50		50		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		900		900	pF
I_s/b	$V_{CE}=24\text{V}$	5.8		5.8		A
I_s/b	$V_{CE}=45\text{V}$	0.9		0.9		A
E_s/b	$V_{BE}4.0\text{V}, I_C=15\text{A}, R_{BE}=20\Omega, L=180\mu\text{H}$	20		20		mJ
t_{ON}	$V_{CC}=30\text{V}, I_C=15\text{A}, I_{B1}=I_{B2}=1.2\text{A}$		0.5		0.5	μs
t_{OFF}	$V_{CC}=30\text{V}, I_C=15\text{A}, I_{B1}=I_{B2}=1.2\text{A}$		2.0		2.0	μs