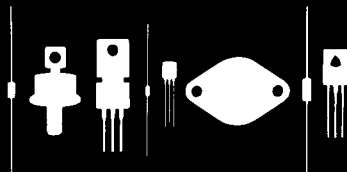


Central
Semiconductor Corp.
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145 Adams Avenue
Hauppauge, New York 11788



2N6674
2N6675

NPN SILICON
POWER TRANSISTOR

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6674, 2N6675 types are NPN Silicon Triple Diffused Mesa Power Transistors designed for high voltage switching applications.

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

	SYMBOL	2N6674	2N6675	UNITS
Collector-Emitter Voltage	V_{CEV}	450	650	V
Collector-Emitter Voltage	V_{CEO}	300	400	V
Emitter-Base Voltage	V_{EBO}	7.0		V
Continuous Collector Current	I_C	15		A
Peak Collector Current	I_{CM}	20		A
Continuous Base Current	I_B	5.0		A
Power Dissipation	P_D	175		W
Operating and Storage				
Junction Temperature	T_J, T_{stg}	-65 to +200		$^\circ\text{C}$
Thermal Resistance	θ_{JC}	1.0		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N6674		2N6675		UNITS
		MIN	MAX	MIN	MAX	
I_{CEV}	$V_{CE} = 450\text{V}, V_{EB(off)} = 1.5\text{V}$		0.1		-	mA
I_{CEV}	$V_{CE} = 650\text{V}, V_{EB(off)} = 1.5\text{V}$		-		0.1	mA
I_{CEV}	$V_{CB} = 450\text{V}, V_{EB(off)} = 1.5\text{V}, T_C = 100^\circ\text{C}$		1.0		-	mA
I_{CEV}	$V_{CB} = 650\text{V}, V_{EB(off)} = 1.5\text{V}, T_C = 100^\circ\text{C}$		-		1.0	mA
I_{EBO}	$V_{EB} = 7.0\text{V}$		2.0		2.0	mA
BV_{CEO}	$I_C = 200\text{mA}$	300		400		V
$V_{CE(SAT)}$	$I_C = 10\text{A}, I_B = 2.0\text{mA}$		1.0		1.0	V
$V_{CE(SAT)}$	$I_C = 10\text{A}, I_B = 2.0\text{mA}, T_C = 100^\circ\text{C}$		2.0		2.0	V
$V_{CE(SAT)}$	$I_C = 15\text{A}, I_B = 5.0\text{mA}$		5.0		5.0	V
$V_{BE(SAT)}$	$I_C = 10\text{A}, I_B = 2.0\text{mA}$		1.5		1.5	V
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 10\text{A}$	8.0	20	8.0	20	
$I_{S/b}$	$V_{CE} = 30\text{V}, I_C = 5.9\text{A}$	1.0		1.0		s
$I_{S/b}$	$V_{CE} = 100\text{V}, I_C = 250\text{mA}$	1.0		1.0		s

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N6674</u>		<u>2N6675</u>		<u>UNITS</u>
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	
h_{fe}	$V_{CE} = 10V, I_C = 1.0A, f = 5.0MHz$	3.0	10	3.0	10	
f_T	$V_{CE} = 10V, I_C = 1.0A, f = 5.0MHz$	15	50	15	50	MHz
C_{ob}	$V_{CB} = 10V, I_E = 0, f = 0.1MHz$	150	500	150	500	pF
$*t_d$	$V_{EB} = 6.0V, I_C = 10A, I_B = 2.0A$		0.1		0.1	μs
$*t_r$	$V_{EB} = 6.0V, I_C = 10A, I_B = 2.0A$		0.6		0.6	μs
$*t_f$	$V_{EB} = 6.0V, I_C = 10A, I_B = 2.0A, T_C = 100^\circ C$		1.0		1.0	μs
$*t_s$	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A$		2.5		2.5	μs
$*t_{sf}$	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A, T_C = 100^\circ C$		4.0		4.0	μs
$*t_{ff}$	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A$		0.5		0.5	μs
$*t_{ff}$	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A, T_C = 100^\circ C$		1.0		1.0	μs

* NOTE: $V_{CC} = 135V, t_p = 20\mu s$

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