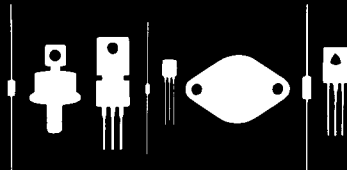


Central
Semiconductor Corp.

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

	<u>SYMBOL</u>	<u>2N6674</u>	<u>2N6675</u>	<u>UNITS</u>
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	$^\circ\text{C}/\text{W}$

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

<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>	
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_s	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A, T_C = 100^\circ C$		4.0		4.0	μs
* t_f	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A$		0.5		0.5	μs
* t_f	$V_{EB} = 6.0V, I_C = 10A, I_{B1} = -I_{B2} = 2.0A, T_C = 100^\circ C$		1.0		1.0	μs

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

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