2N6674
2N6675

NPN SILICON
POWER TRANSISTOR

TO-3 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

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

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°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		°C
Thermal Resistance	Θ_{JC}	1.0		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=Rated V_{CEV}, V_{BE}=1.5V		0.1	mA
I_{CEV}	V_{CE}=Rated V_{CEV}, V_{BE}=1.5V, T_C=100°C		1.0	mA
I_{EBO}	V_{EB}=7.0V		2.0	mA
BV_{CEO}	I_C=200mA (2N6674)	300		V
BV_{CEO}	I_C=200mA (2N6675)	400		V
$V_{CE(SAT)}$	I_C=10A, I_B=2.0A		1.0	V
$V_{CE(SAT)}$	I_C=10A, I_B=2.0A, T_C=100°C		2.0	V
$V_{CE(SAT)}$	I_C=15A, I_B=5.0A		5.0	V
$V_{BE(SAT)}$	I_C=10A, I_B=2.0A		1.5	V
h_{FE}	V_{CE}=2.0V, I_C=10A	8.0	20	
$I_{S/b}$	V_{CE}=30V, I_C=5.9A	1.0		s
$I_{S/b}$	V_{CE}=100V, I_C=250mA	1.0		s
h_{fe}	V_{CE}=10V, I_C=1.0A, f=5.0MHz	3.0	10	
f_t	V_{CE}=10V, I_C=1.0A, f=5.0MHz	15	50	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz	150	500	pF

R1 (10-March 2011)

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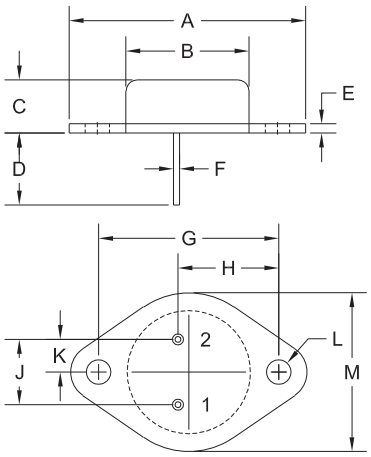
ELECTRICAL CHARACTERISTICS - Continued: (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
t_d*	V_{EB}=6.0V, I_C=10A, I_B=2.0A		0.1	μs
t_r*	V_{EB}=6.0V, I_C=10A, I_B=2.0A		0.6	μs
t_r*	V_{EB}=6.0V, I_C=10A, I_B=2.0A, T_C=100°C		1.0	μs
t_s*	V_{EB}=6.0V, I_C=10A, I_{B1}=I_{B2}=2.0A		2.5	μs
t_s*	V_{EB}=6.0V, I_C=10A, I_{B1}=I_{B2}=2.0A, T_C=100°C		4.0	μs
t_f*	V_{EB}=6.0V, I_C=10A, I_{B1}=I_{B2}=2.0A		0.5	μs
t_f*	V_{EB}=6.0V, I_C=10A, I_{B1}=I_{B2}=2.0A, T_C=100°C		1.0	μs

* VCC=135V, tp=20μs

TO-3 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

R2

LEAD CODE:
1) Base
2) Emitter
Case) Collector

MARKING:
FULL PART NUMBER