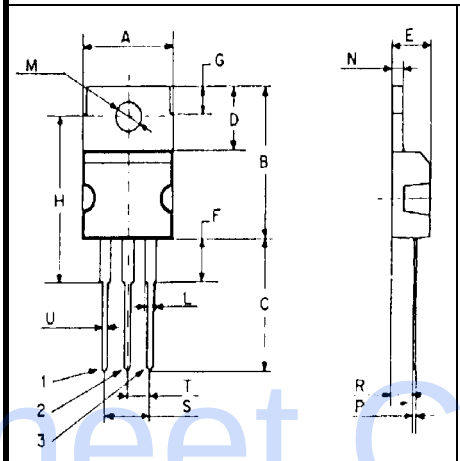
SILICON CONTROLLED RECTIFIER (SCR)

DESCRIPTION:

The **2N6508** is a Medium Current SCR for General Purpose Power Control Applications.

PACKAGE STYLE TO-220AB



1: Cathode 2: Anode 3: Gate Tab: Anode

	DIMENSIONS			
	mm		inches	
	min	max	min	max
A	10	10.4	0.393	0.409
B	15.2	15.9	0.598	0.626
C	12.7	13.7	0.500	0.539
D	6.2	6.6	0.244	0.260
E	4.4	4.6	0.173	0.181
F	3.5	5.5	0.137	0.216
G	2.65	2.95	0.104	0.116
H	17.6 typ.		0.692 typ.	
L	1.14	1.7	0.044	0.067
M	3.75	3.85	0.147	0.151
N	1.23	1.32	0.048	0.051
P	0.41	0.64	0.016	0.025
R	2.4	2.72	0.094	0.107
S	4.95	5.15	0.194	0.203
T	2.4	2.7	0.094	0.106
U	0.61	0.94	0.024	0.037

MAXIMUM RATINGS

I_T	25 A $_{(RMS)}$ @ T_C = 85 ^{O}C 16 A $_{(AVG)}$ @ T_C = 25 ^{O}C
V_{CE}	600 V
P_{DISS}	P_{GM} = 20 W $P_{G\ (AVG)}$ = 0.5 W
T_J	-40 ^{O}C to +125 ^{O}C
T_{STG}	-40 ^{O}C to +150 ^{O}C
θ_{JC}	1.50 ^{O}C/W

CHARACTERISTICS T_C = 25 ^{O}C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
I_{DRM}/I_{RRM}	V_{DRM}/V_{RRM} = 600 V		T_J = 25 ^{O}C			10	µA
I_{DRM}/I_{RRM}	V_{DRM}/V_{RRM} = 600 V		T_J = 125 ^{O}C			2.0	mA
I_{GT}	V_D = 12 V	R_L = 100 Ω	T_C = 25 ^{O}C T_C = -40 ^{O}C			40 75	mA mA
V_{GT}	V_D = 12 V	R_L = 100 Ω	T_C = -40 ^{O}C			1.50	V
V_{GD}	V_D = 600 V	R_L = 100 Ω	T_J = 125 ^{O}C	0.2			V
I_H	V_D = 12 V		T_C = -40 ^{O}C			40	mA
V_{TM}	I_{TM} = 50 A (PEAK)					1.80	V
t_{gt}	I_{TM} = 25 A	I_{GT} = 50 mA				2.0	µS
t_q	I_{TM} = 25 A	I_R = 25 A	T_J = 25 ^{O}C T_J = 125 ^{O}C		15 35		µS µS
dv/dt	V_{DRM} = 600 V GATE OPEN				50		V/µS
I_{TSM}	PEAK NON-REPETITIVE SURGE CURRENT 1.5 mS	½ CYCLE	t = 8.3 mS t =			300 350	A A