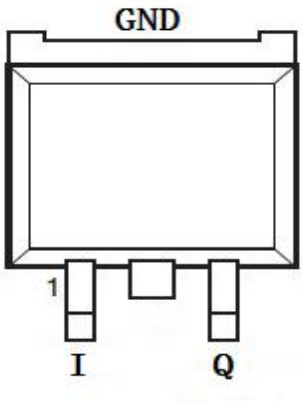



2

1

| | | |
|---|---|---|
| I | 1 | |
| GND | 2 | |
| Q | 3 | 10kHz $C_Q \geq 10uF$ ESR $\leq 10\Omega$ |

I ..... -0.3V~42V

Q ..... -0.3V~12V

$V_I$-$V_Q$ ..... -0.3V~37V

[2]

$\theta_{JA}$ ..... 37 /W

..... -40 ~150

10s ..... 260

..... -40 ~150

ESD[3]

$V_{ESD\_HBM}$ .....-2000V~+2000V

$V_{ESD\_CDM}$ .....-300V~+300V

..... $V_Q + V_{dr}$~42V

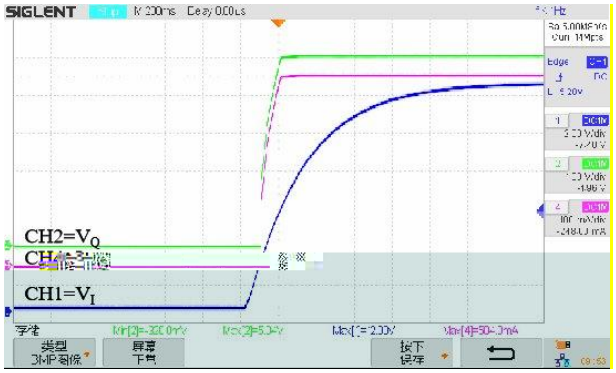
..... -40 ~125

$V_I$ = 13.5V $I_Q$ = 10mA $T_A$ = 25

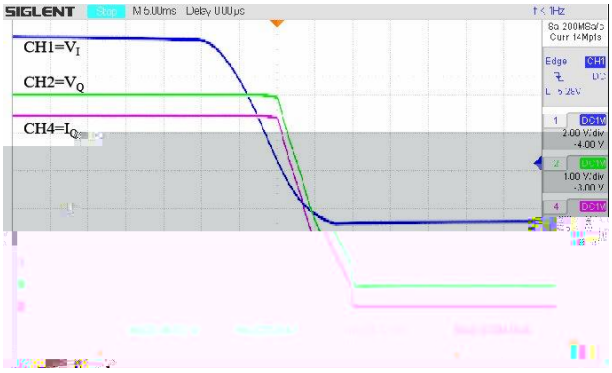
| | | | | | |
|---|---|---|---|---|---|
| $V_I$ | $I_Q$ = 0mA $V_Q$=5V | 5.3 | | 42 | V |
| $V_Q$ | 10mA ≤ $I_Q$ ≤ 400mA<br>6.4V ≤ $V_I$ ≤ 16V | 4.9 | 5.0 | 5.1 | V |
| | 10mA ≤ $I_Q$ ≤ 400mA<br>16V ≤ $V_I$ ≤ 42V | | 5.0 | | V |
| $\Delta V_{LNR}$ | 6.4V ≤ $V_I$ ≤ 42V | | 10 | 20 | mV |
| $\Delta V_{LDR}$ | 10mA ≤ $I_Q$ ≤ 400mA | | 10 | 30 | mV |
| $V_{dr}$ | $I_Q$ = 300mA | 0.15 | 0.25 | 0.35 | V |
| $I_{q1}$ | $V_I$ = 12V | | 90 | 110 | μA |
| $I_{q2}$ | $V_I$ = 13.5V $I_Q$ = 10mA | | 90 | 110 | μA |
| $I_Q$ | $V_I$ = 7V $V_Q$ = 5V | 0 | | 1 | A |
| $I_{LIM}$ | $V_I$ = 13.5V<br>$V_Q$ = 0.9*$V_{Q(normal)}$ | 0.8 | 1.0 | | |

$T_A$=25

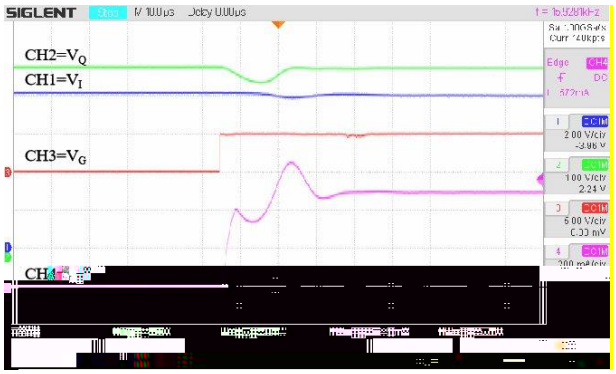
$V_I$=12V $V_Q$=5V $I_Q$=504mA




$V_I$=12V $V_Q$=5V $I_Q$=504mA



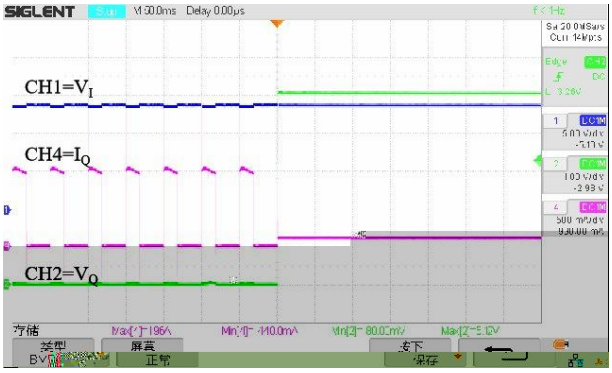

$V_I$=8V $V_Q$=5V $I_Q$ 0mA~500mA



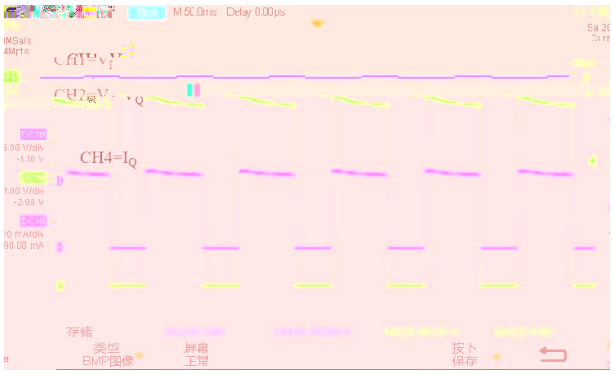

$V_I$=8V $V_Q$=5V $I_Q$ 500mA~0mA


$V_I$=13.5V $V_Q$=5V $I_Q$ 0.1mA~

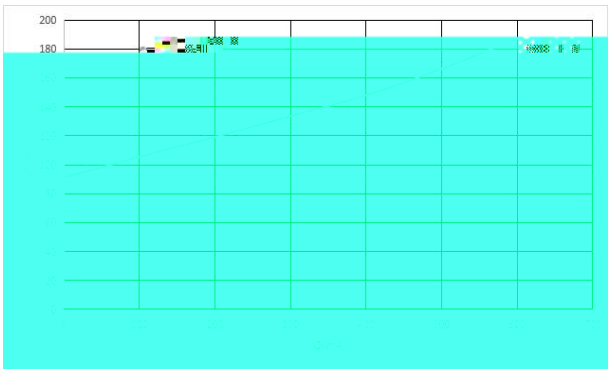

$V_I$=13.5V $V_Q$=5V $I_Q$ ~0.1mA



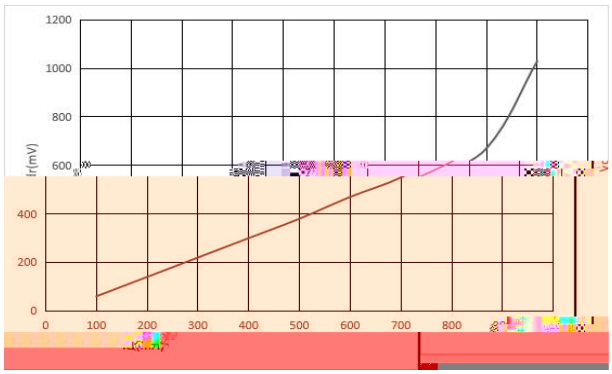
$V_I$=13.5V $V_Q$=5V $I_Q$=1A



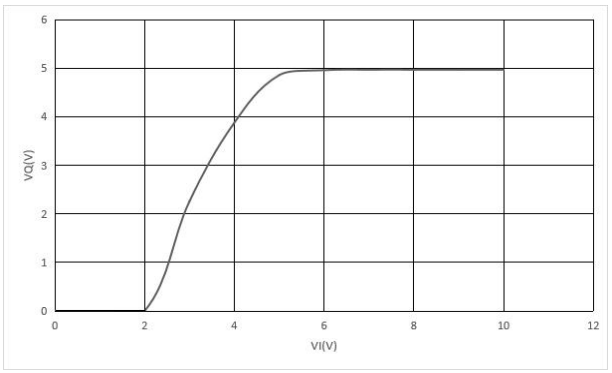

$V_I$=13.5V




$V_I$=13.5V $V_Q$=4.99V




$R_{load}$=25Ω



100nF~470nF

10uF~470uF

10uF

1~2Ω

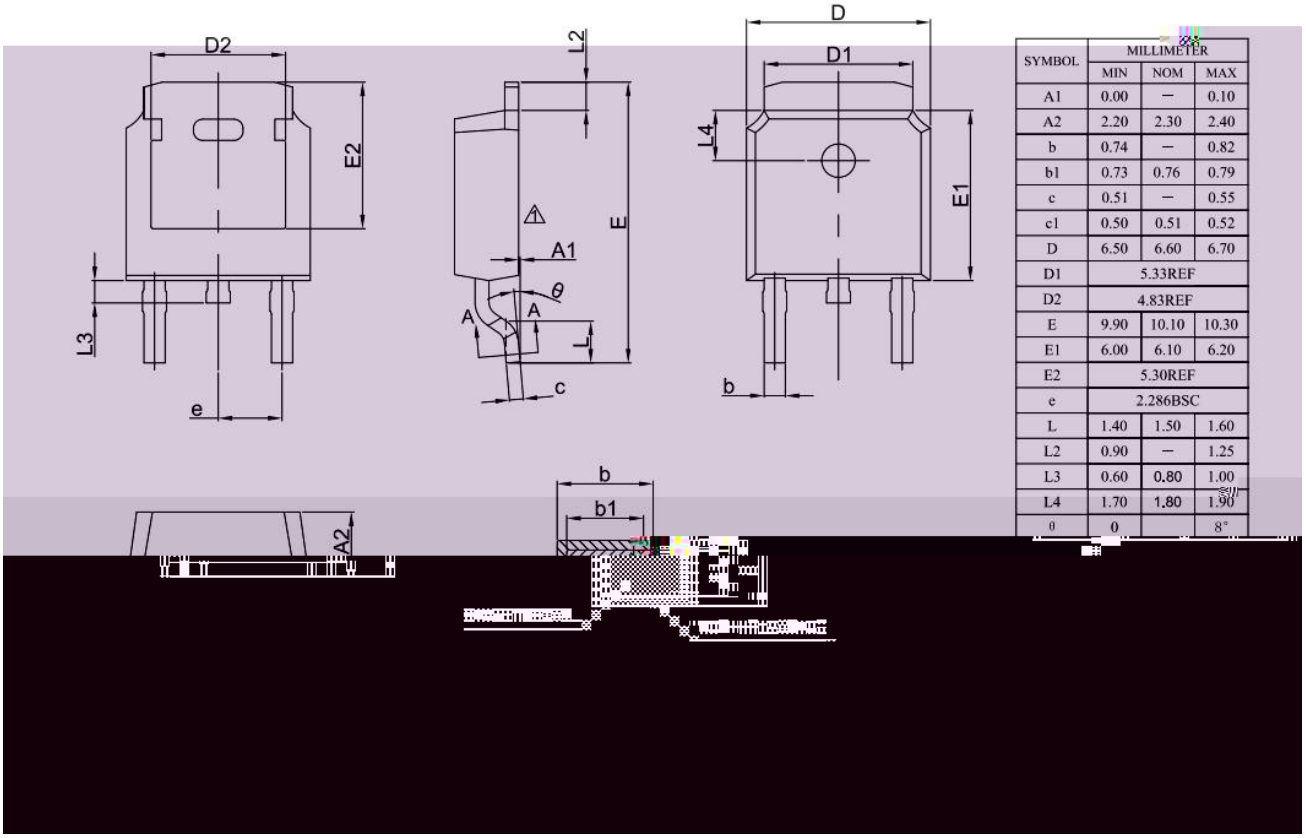
IC IC

L4080 1A

$P_D = (V_{IN}-V_{OUT}) \times I_{OUT}+V_{IN} \times I_{GND}$

$P_{D(MAX)} = (T_{J(MAX)}-T_A)/\theta_{JA}$

$T_{J(MAX)}$ $T_A$




| SYMBOL | MILLIMETER | | |
|---|---|---|---|
| | MIN | NOM | MAX |
| A1 | 0.00 | — | 0.10 |
| A2 | 2.20 | 2.30 | 2.40 |
| b | 0.74 | — | 0.82 |
| b1 | 0.73 | 0.76 | 0.79 |
| c | 0.51 | — | 0.55 |
| c1 | 0.50 | 0.51 | 0.52 |
| D | 6.50 | 6.60 | 6.70 |
| D1 | 5.33REF | | |
| D2 | 4.83REF | | |
| E | 9.90 | 10.10 | 10.30 |
| E1 | 6.00 | 6.10 | 6.20 |
| E2 | 5.30REF | | |
| e | 2.286BSC | | |
| L | 1.40 | 1.50 | 1.60 |
| L2 | 0.90 | — | 1.25 |
| L3 | 0.60 | 0.80 | 1.00 |
| L4 | 1.70 | 1.80 | 1.90 |
| θ | 0 | | 8° |

TO252-3

| | | |
|---|---|---|
| L4080 | TO252-3 | 2500/Tape & Reel |