

/ Descriptions

SOP-8 N MOS

N-Channel Enhancement Mode Field Effect Transistor in a SOP-8 Plastic Package.

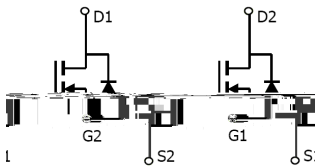
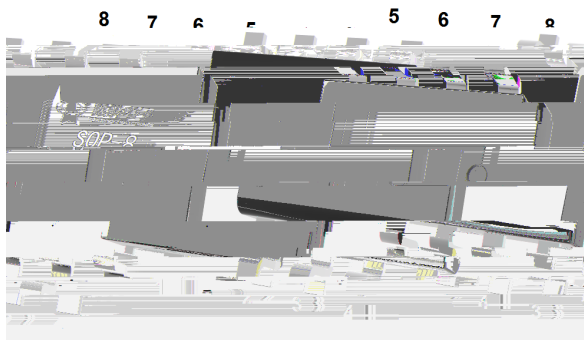
/ Features $V_{DS}(V)=30V$ $I_D=6.9A$ $R_{DS(ON)} < 32m\Omega (V_{GS}=10V)$ $R_{DS(ON)} < 36m\Omega (V_{GS}=4.5V)$ $R_{DS(ON)} < 52m\Omega (V_{GS}=2.5V)$

AEC-Q101

Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

Power Management in Notebook computer, Portable Equipment and Battery powered systems and this device is suitable for use as a load switch or in PWM applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit**/ Pinning**

PIN1	S2	PIN 2	G2	PIN 3	S1	PIN 4	G1
PIN 5	D1	PIN 6	D1	PIN 7	D2	PIN 8	D2

/ Marking

See Marking Instructions.

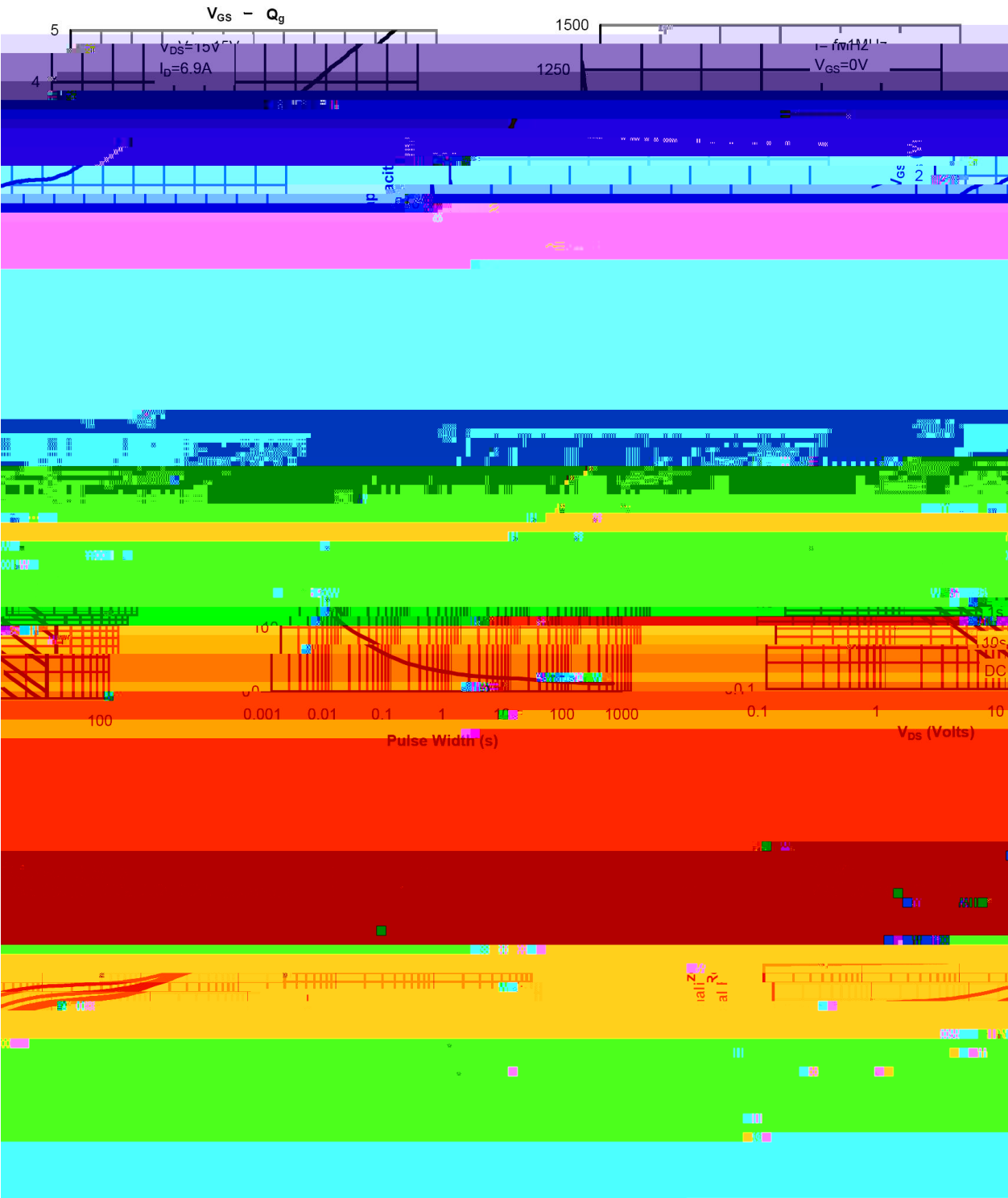
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current ^A	$I_D (T_a=25^\circ\text{C})$	6.9	A
	$I_D (T_a=70^\circ\text{C})$	5.8	A
Pulsed Drain Current ^B	I_{DM}	40	A
Power Dissipation for Single Operation ^A	$P_D (T_a=25^\circ\text{C})$	2.0	W
	$P_D (T_a=70^\circ\text{C})$	1.44	W
Junction and Storage Temperature Range	T_j, T_{stg}	-55 +150	
Thermal Resistance-Junction to Ambient ^A	$R_{\theta JA} \quad t \leq 10s$	62.5	/W
	$R_{\theta JA}$	110	/W
Maximum Junction-to-Lead ^C	$R_{\theta JL}$	40	/W

Note:

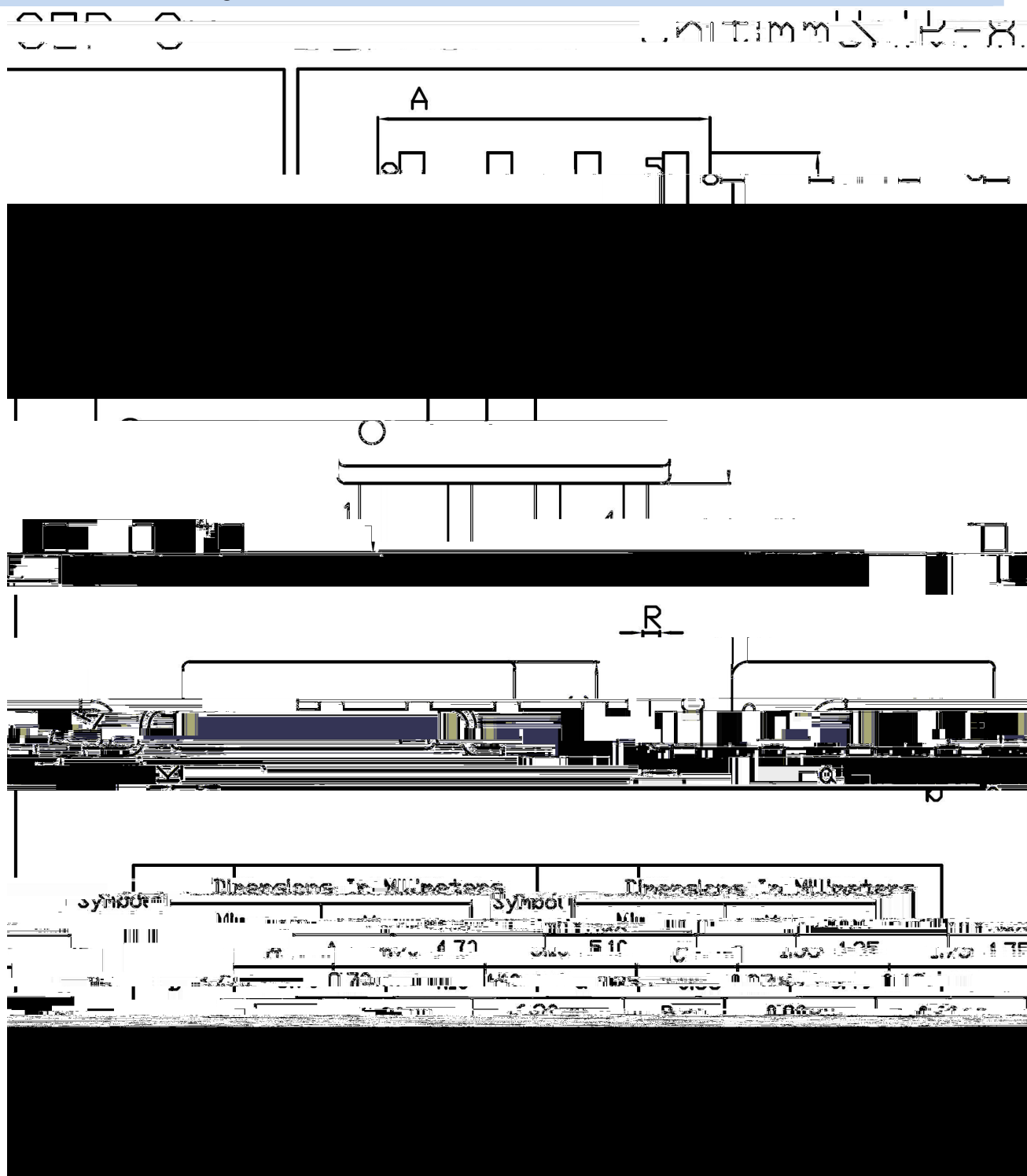
A: The value of $R_{\theta JA}$ is measured with the device mounted on 1in² FR-4 board with 2oz. Copper, in a still air environment with $T_a=25^\circ\text{C}$. The value in any a given application depends on the user's specific board design. The current rating is based on the $t \leq$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu A$ $V_{GS}=0V$	30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=24V$ $V_{GS}=0V$			1.0	μA
		$V_{DS}=24V$ $V_{GS}=0V$ $T_J=55^\circ C$			5.0	
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	0.7	1.1	1.4	V
On state drain current	$I_{D(ON)}$	$V_{GS}=4.5V$ $V_{DS}=5.0V$	6.9			A
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V$ $I_D=6.9A$		24	32	m Ω
		$V_{GS}=10V$ $I_D=6.9A$ $T_J=125^\circ C$		32.3	38	
		$V_{GS}=4.5V$ $I_D=6.0A$		27	36	
		$V_{GS}=2.5V$ $I_D=5.0A$		40	52	

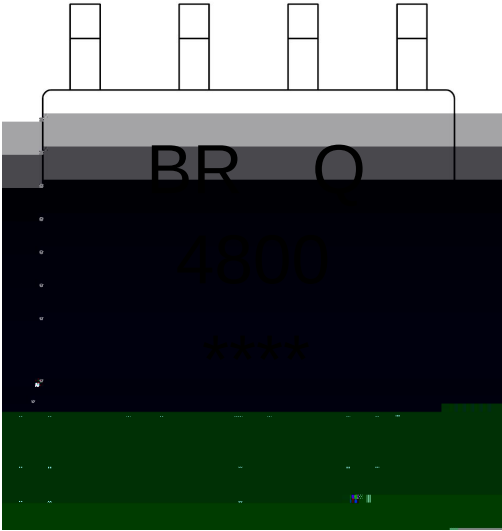
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

Q

4800

Note:

- BR:
- Company Code
- Q:
- Automobile halogen-free product Code
- 4800:
- Product Type
- ****:
- Lot No. Code, code change with Lot No

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±