

/ Descriptions

SOP-8 互补增强型 MOS 管
Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

/ Features

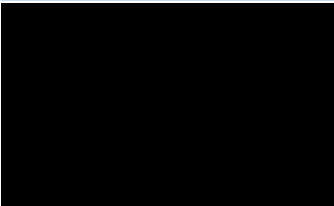
N-channel	P-channel
$V_{DS}(V)=40V$	$V_{DS}(V)=-40V$
$I_D=8A(T_C=25\text{ }^{\circ}C)$	$I_D=-7A(T_C=25\text{ }^{\circ}C)$
$U_{GS+RQ}, ?58\text{ pF}+Y_{JV}@43Y,$	$U_{GS+RQ}, ?68\text{ pF}+Y_{JV}@043Y,$
$U_{GS+RQ}, ?78\text{ pF}+Y_{JV}@718Y,$	$U_{GS+RQ}, ?93\text{ pF}+Y_{JV}@0718Y,$
高频产品 HF Product.	

/ Applications

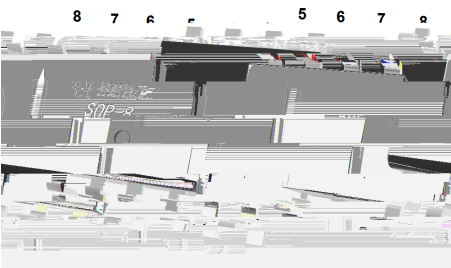
这些器件非常适合用于高效率的开关 DC/DC 转换器和开关模式电源。并且适用于用作负载开关或在 PWM 应用中。

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies. And suitable for use as a load switch or in PWM applications.

/ Equivalent Circuit



/ Pinning



PIN 1 接 S1	PIN 2 接 G1	PIN 3 接 S2	PIN 4 接 G2
PIN 5 接 D2	PIN 6 接 D2	PIN 7 接 D1	PIN 8 接 D1

/ Marking

见“标记”
See Marking Instructions.


1 Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Rating		Unit
		N-channel	P-channel	
Drain-Source Voltage	V_{DS}	40	-40	V
Gate-Source Voltage	V_{GS}	± 20		V
Continuous Drain Current	$I_D (T_C=25^\circ\text{C})$	8	-7	A
Continuous Drain Current	$I_D (T_A=25^\circ\text{C})$	6	-5	A
Pulsed Drain Current	I_{DM}	20	-20	A
Power Dissipation	$P_D (T_C=25^\circ\text{C})$	3.5	3.5	W
Power Dissipation	$P_D (T_A=25^\circ\text{C})$	2	2	W
Maximum Junction-to-Ambient	$R_{\theta JA}$	$t \leq 10\text{s}$		/W
	$R_{\theta JA}$	Steady-State		/W
Maximum Junction-to-Case	$R_{\theta JC}$	Steady-State		/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150		

BRCS4614SC

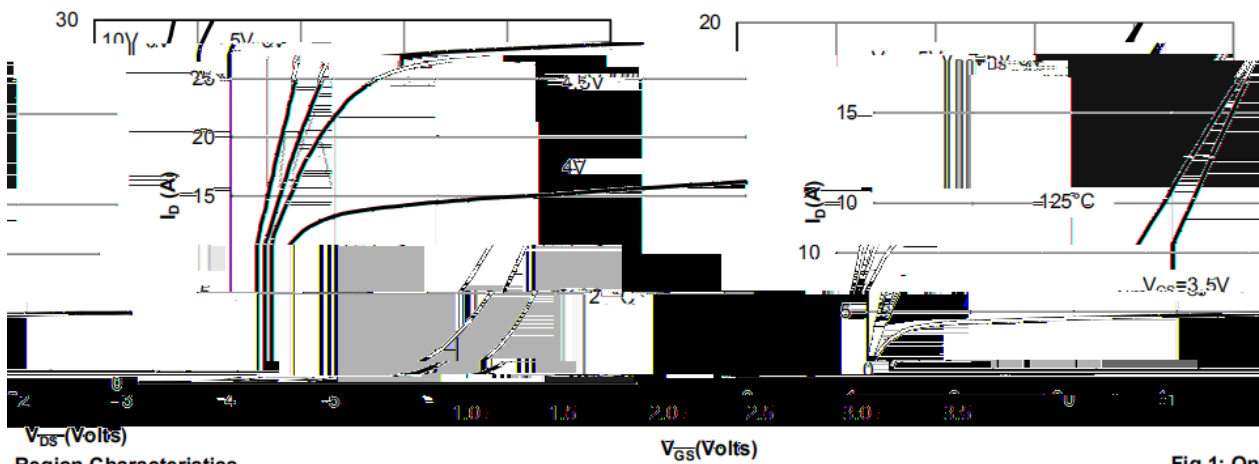
N- / N-CHANNEL Electrical Characteristic Curve


Fig 1: On

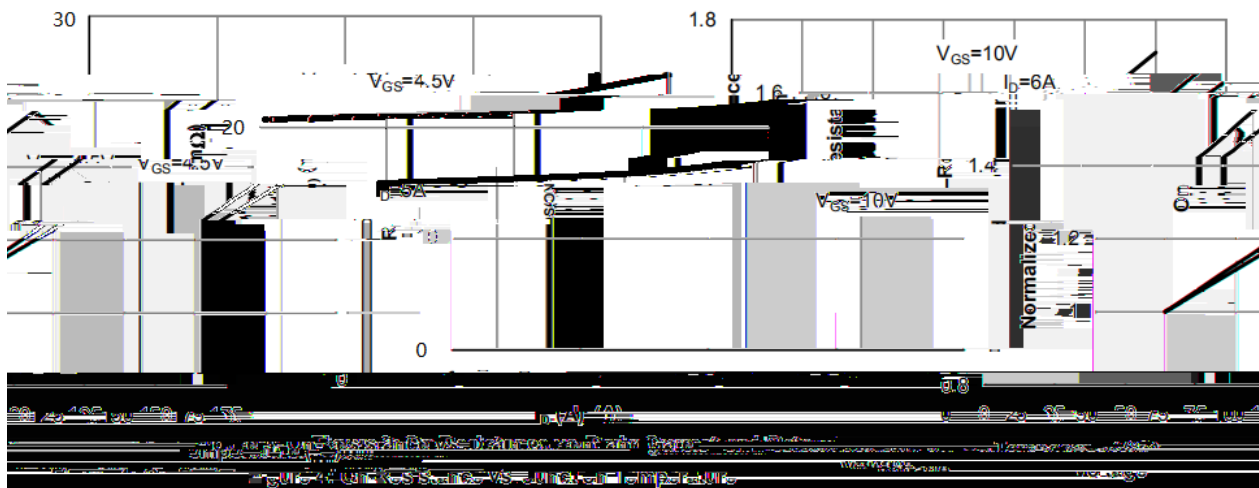
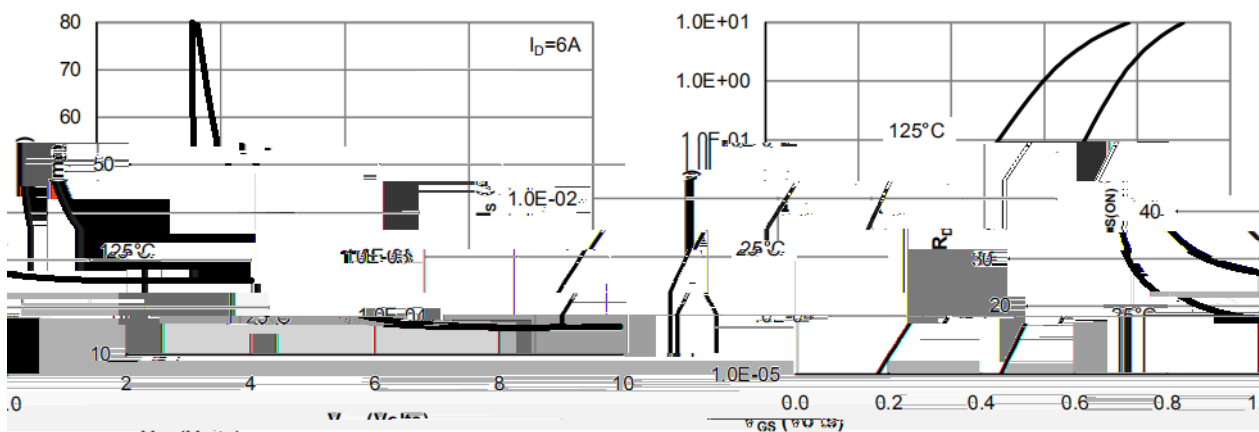


Figure 3: On-Region Characteristics

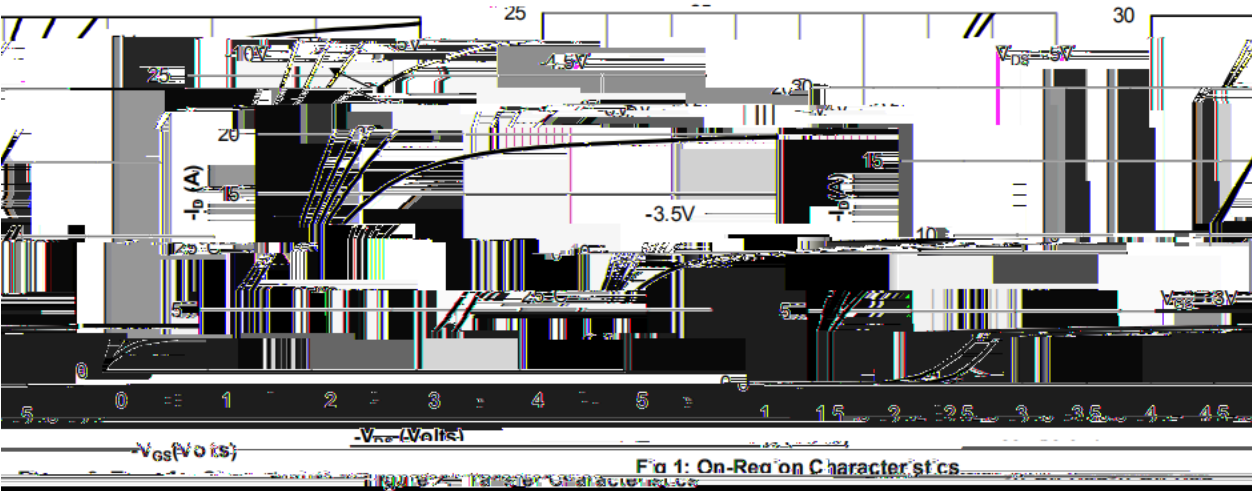
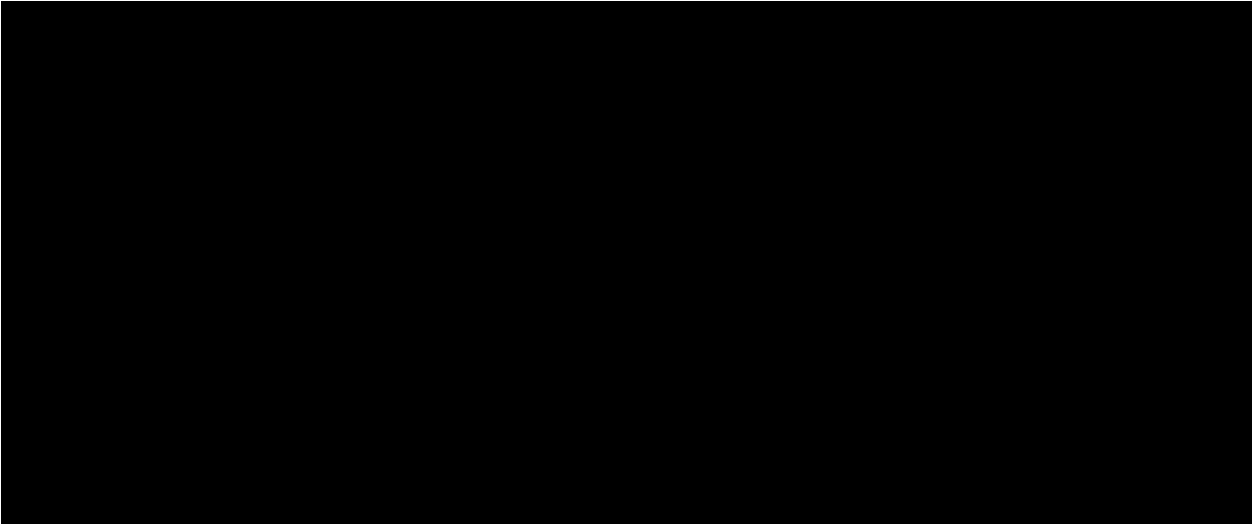
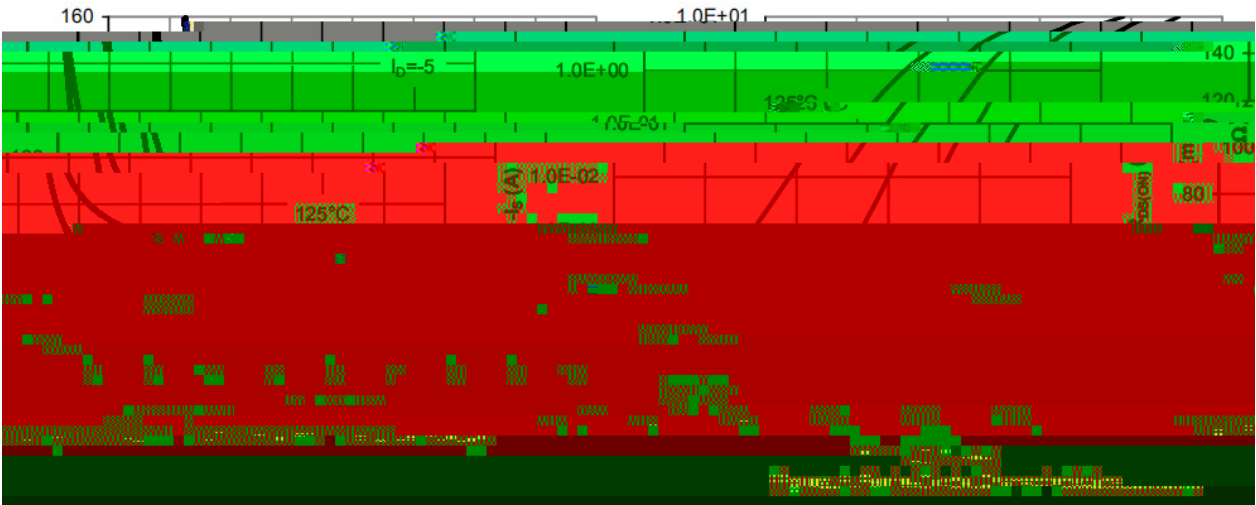
Figure 5: On-Resistance vs. Gate-Source Voltage

Figure

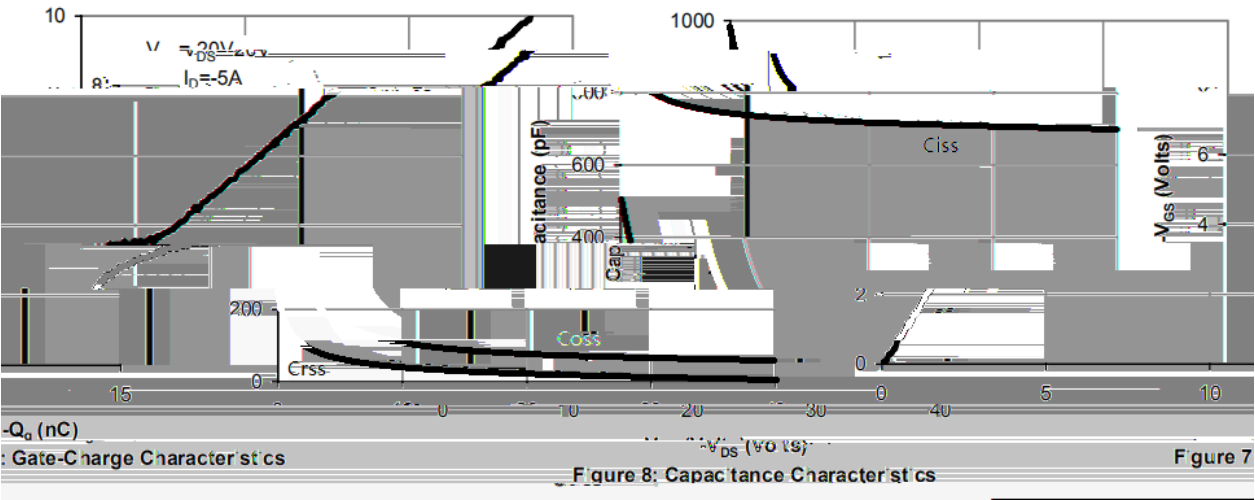
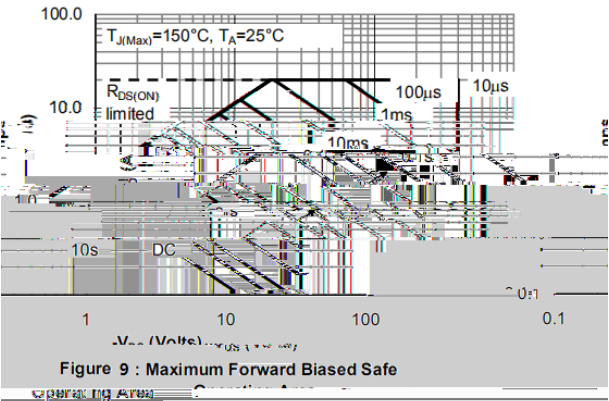
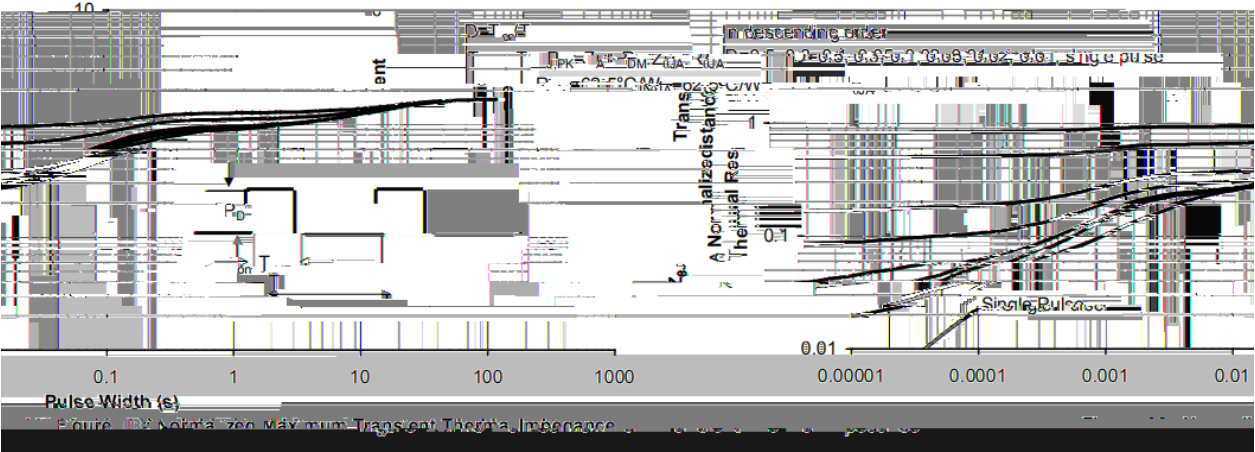


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=-250\mu A$	-40	-46		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-40V$ $V_{GS}=0V$			-1.0	μA
		$V_{DS}=-40V$ $V_{GS}=0V$ $T_J=55$			-5.0	μA
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-1.4	-1.6	-3.0	V
On state drain current	$I_{D(on)}$	$V_{DS}=-5V$ $V_{GS}=-10V$	6			A
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V$ $I_D=-5.0A$		32	35	m Ω
		$V_{GS}=-4.5V$ $I_D=-2.0A$		49	60	m Ω
Forward Transconductance	g_{FS}	V				

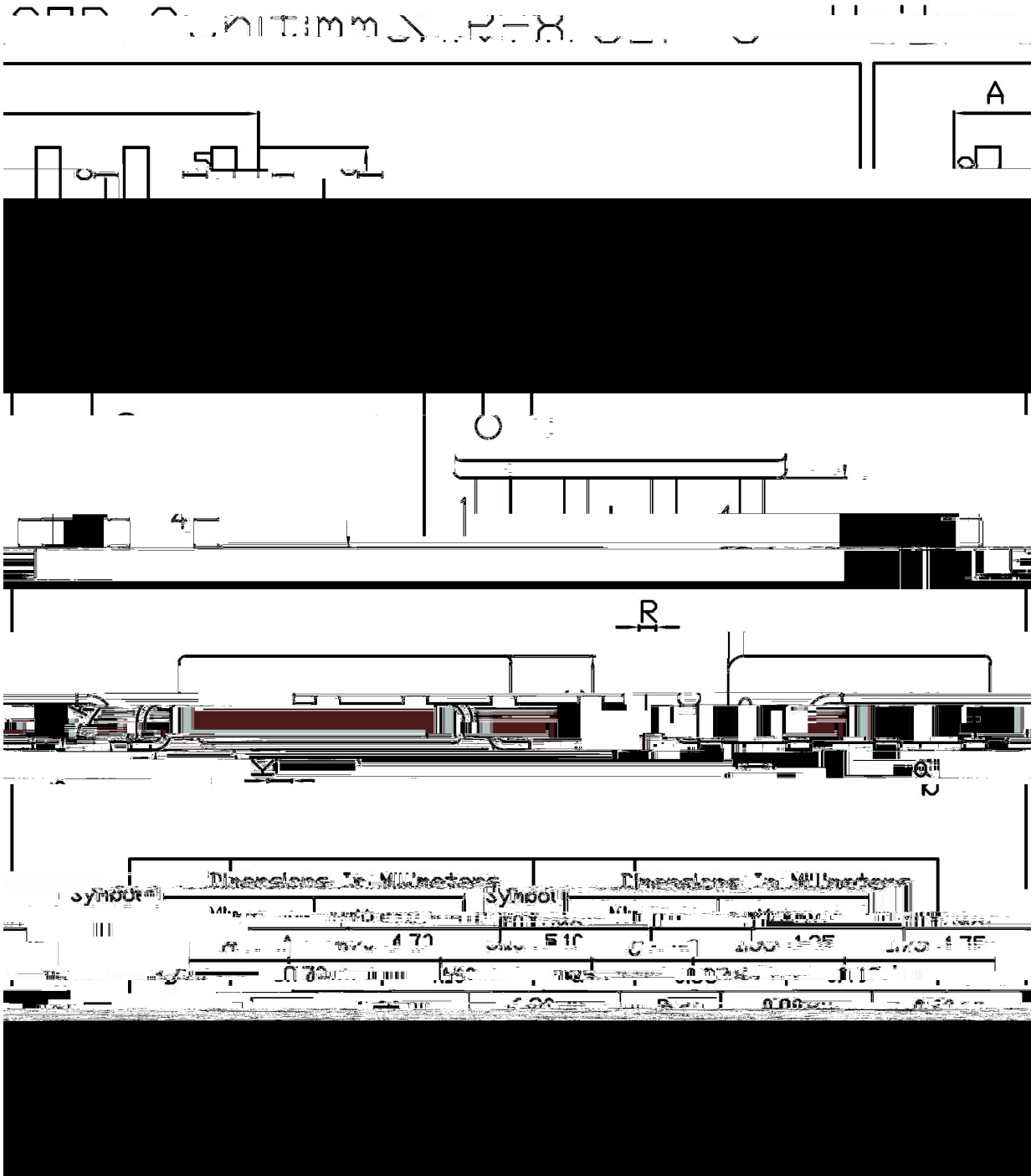
P- / P-CHANNEL Electrical Characteristic Curve



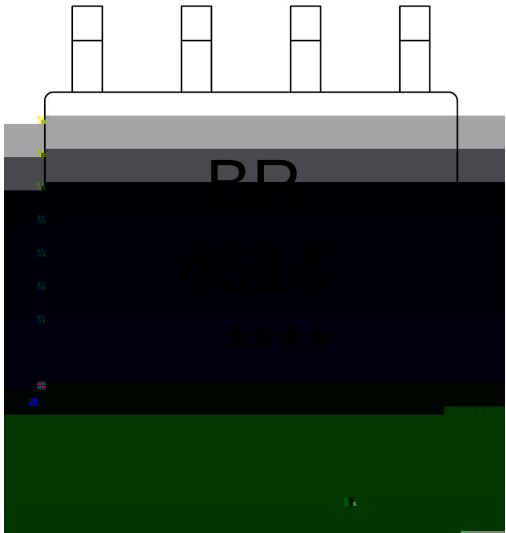
P- / P-CHANNEL Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR	Company Code
4614	Product Type Code
****	Lot No. Code, code change with Lot No

