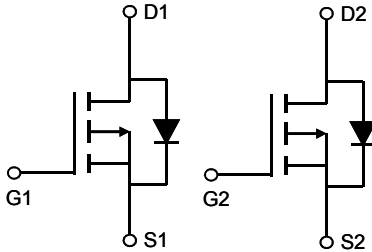
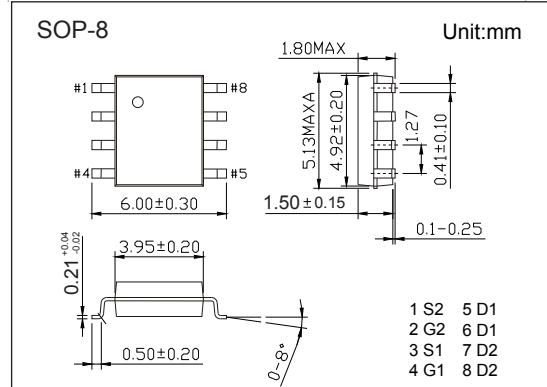


## Dual P-Channel MOSFET RC4807

### ■ Features

- $V_{DS} (V) = -30V$
- $I_D = -6 A (V_{GS} = -10V)$
- $R_{DS(ON)} < 35m\Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 58m\Omega (V_{GS} = -4.5V)$



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		$V_{DS}$	-30	V
Gate-Source Voltage		$V_{GS}$	± 20	
Continuous Drain Current	$T_A = 25^\circ C$	$I_D$	-6	A
	$T_A = 70^\circ C$		-5	
Pulsed Drain Current		$I_{DM}$	-30	
Avalanche Current		$I_{AS}, I_{AR}$	-23	
Avalanche Energy	$L = 0.1mH$	$E_{AS}, E_{AR}$	26	mJ
Power Dissipation	$T_A = 25^\circ C$	$P_D$	2	W
	$T_A = 70^\circ C$		1.3	
Thermal Resistance.Junction- to-Ambient	$t \leq 10s$	$R_{thJA}$	62.5	$^\circ C/W$
	Steady-State		90	
Thermal Resistance.Junction- to-Lead		$R_{thJL}$	40	
Junction Temperature		$T_J$	150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-55 to 150	

## Dual P-Channel MOSFET RC4807

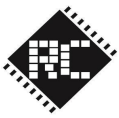
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	I <sub>D</sub> =-250 μA, V <sub>GS</sub> =0V	-30			V	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-30V, V <sub>GS</sub> =0V			-1	uA	
		V <sub>DS</sub> =-30V, V <sub>GS</sub> =0V, T <sub>J</sub> =55°C			-5		
Gate-Body Leakage Current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±100	nA	
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =-250uA	-1.3		-2.4	V	
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =-10V, I <sub>D</sub> =-6A			35	mΩ	
		V <sub>GS</sub> =-10V, I <sub>D</sub> =-6A T <sub>J</sub> =125°C			45		
		V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-5A			58		
On State Drain Current	I <sub>D(ON)</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-5V	-30			A	
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =-5V, I <sub>D</sub> =-6A		19		S	
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =-15V, f=1MHz		760		pF	
Output Capacitance	C <sub>oss</sub>			140			
Reverse Transfer Capacitance	C <sub>rss</sub>			95			
Gate Resistance	R <sub>g</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =0V, f=1MHz	1.5		5	Ω	
Total Gate Charge (10V)	Q <sub>g</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-15V, I <sub>D</sub> =-6A		13.6	16	nC	
Total Gate Charge (4.5V)				6.7	8		
Gate Source Charge			Q <sub>gs</sub>		2.5		
Gate Drain Charge			Q <sub>gd</sub>		3.2		
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-15V, R <sub>L</sub> =2.7Ω, R <sub>GEN</sub> =3Ω		8		ns	
Turn-On Rise Time	t <sub>r</sub>			6			
Turn-Off DelayTime	t <sub>d(off)</sub>			17			
Turn-Off Fall Time	t <sub>f</sub>			5			
Body Diode Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = -6A, di/dt= 100A/us		15		nA	
Body Diode Reverse Recovery Charge	Q <sub>rr</sub>			9.7			
Maximum Body-Diode Continuous Current	I <sub>S</sub>				-3.5	A	
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-1A, V <sub>GS</sub> =0V			-1	V	

Note.The static characteristics in Figures 1 to 6 are obtained using <300us pulses, duty cycle 0.5% max.

■ Marking

Marking	4807 *****
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# Dual P-Channel MOSFET

## RC4807

### Typical Characteristics

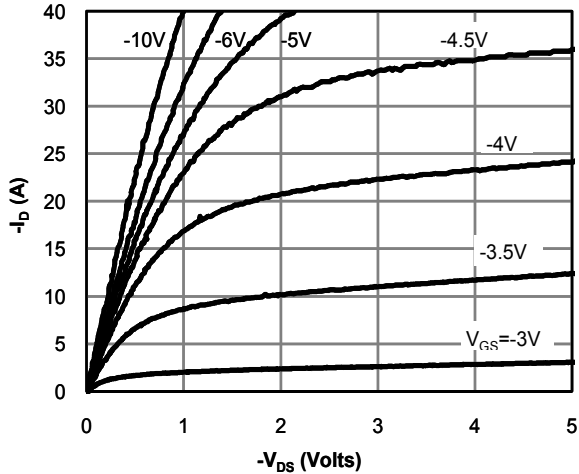


Figure 1: On-Region Characteristics (Note E)

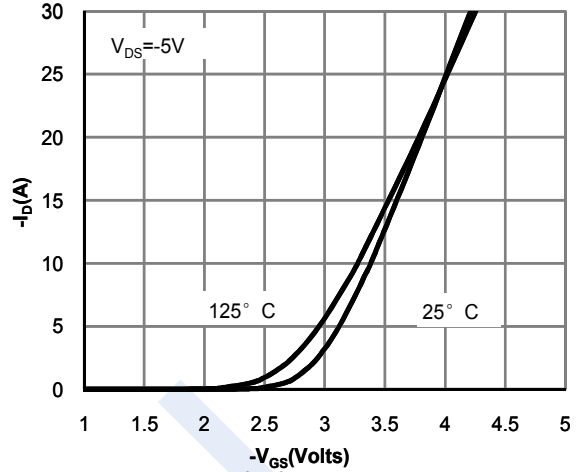


Figure 2: Transfer Characteristics (Note E)

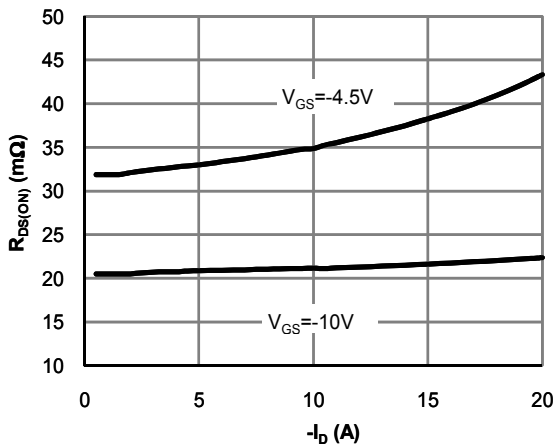


Figure 3: On-Resistance vs. Drain Current and Gate Voltage (Note E)

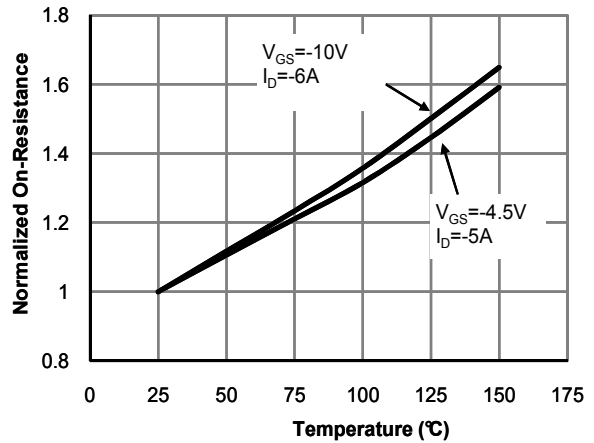


Figure 4: On-Resistance vs. Junction Temperature (Note E)

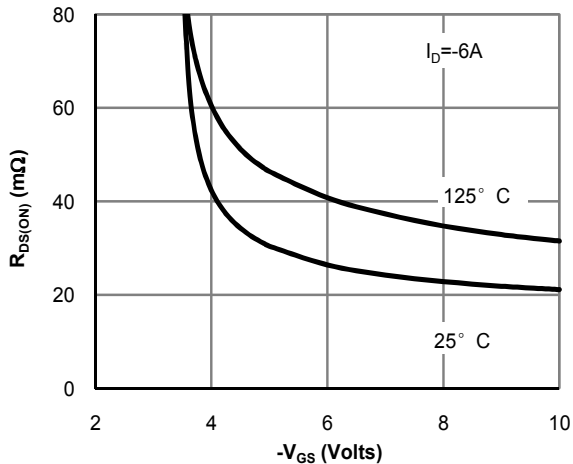


Figure 5: On-Resistance vs. Gate-Source Voltage (Note E)

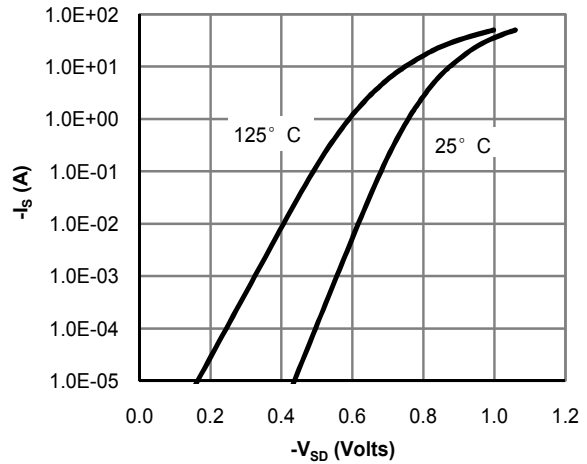


Figure 6: Body-Diode Characteristics (Note E)

## Dual P-Channel MOSFET RC4807

### ■ Typical Characteristics

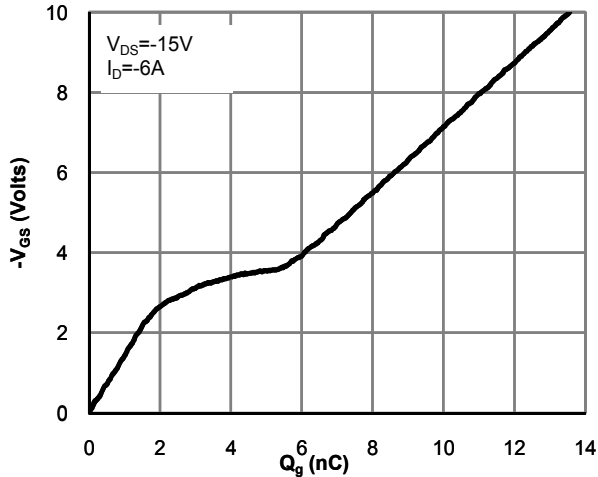


Figure 7: Gate-Charge Characteristics

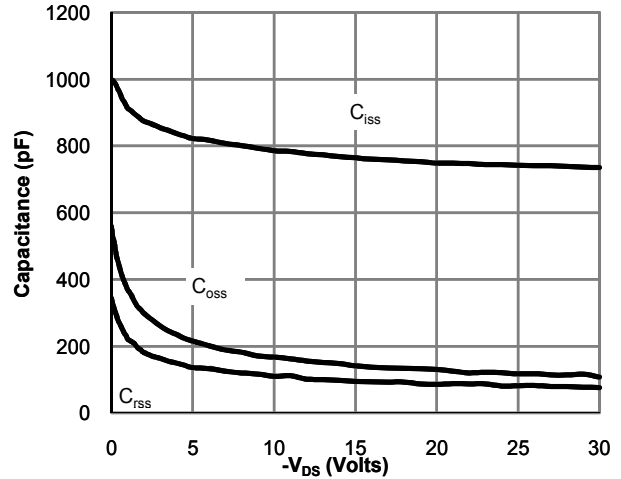


Figure 8: Capacitance Characteristics

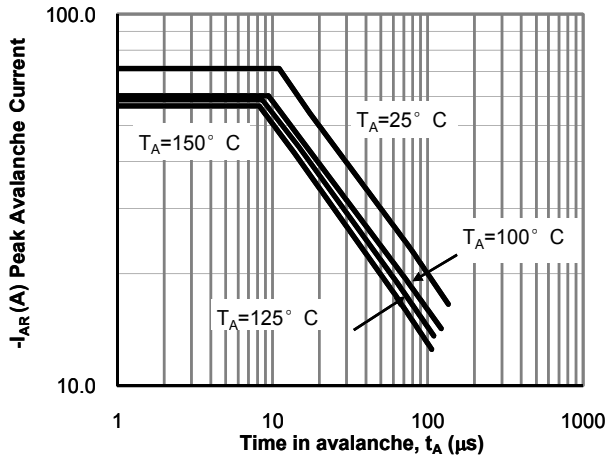


Figure 9: Single Pulse Avalanche capability (Note C)

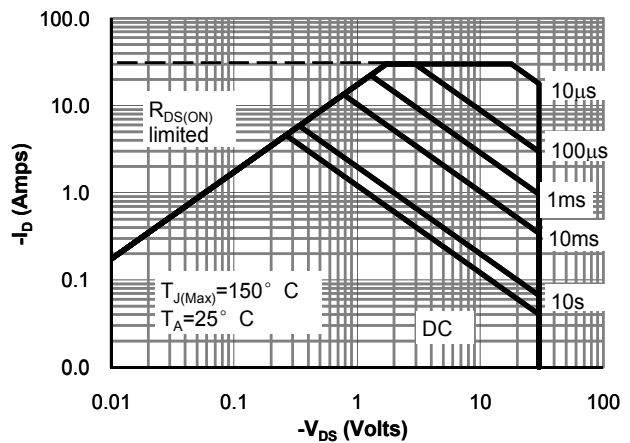


Figure 10: Maximum Forward Biased Safe Operating Area (Note F)

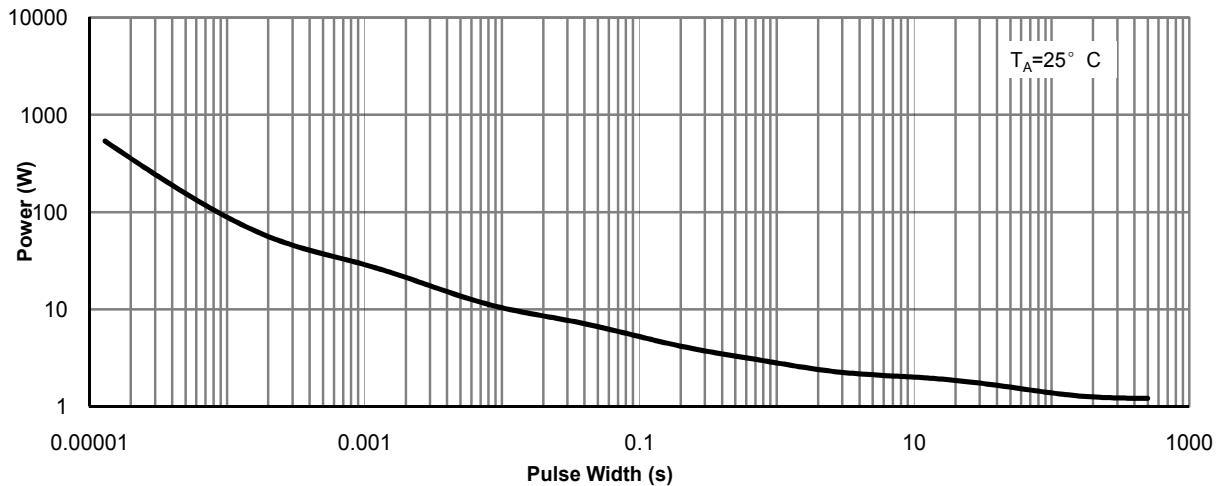


Figure 11: Single Pulse Power Rating Junction-to-Ambient (Note F)

## Dual P-Channel MOSFET RC4807

### ■ Typical Characteristics

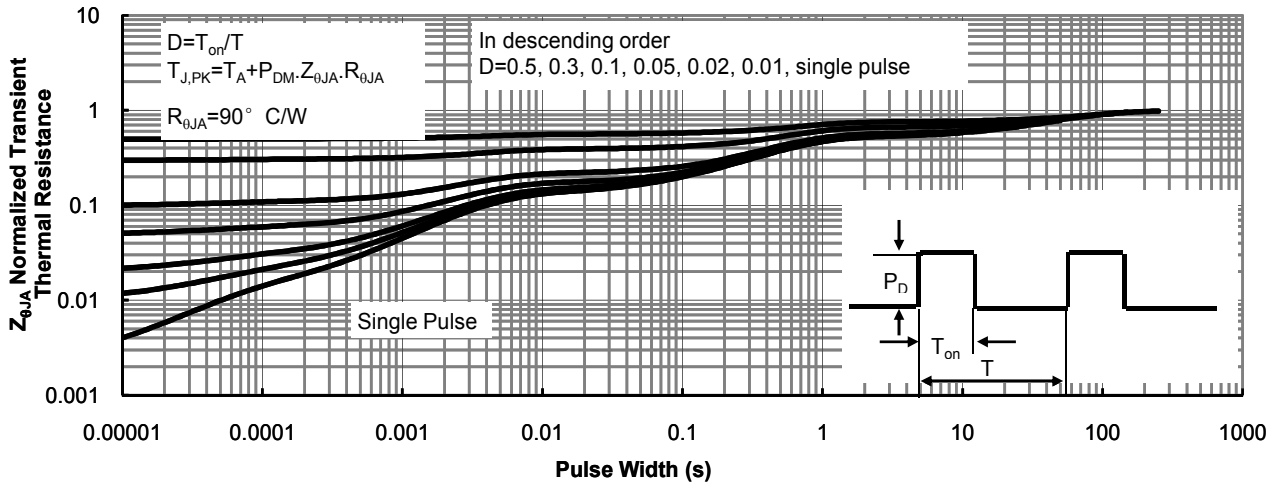


Figure 12: Normalized Maximum Transient Thermal Impedance (Note F)