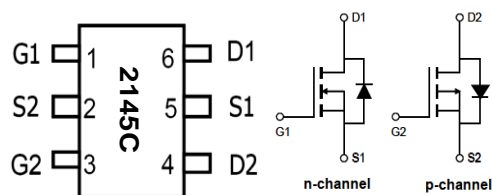


Main Product Characteristics

	N-ch	P-ch
V_{DSS}	20V	-20V
$R_{DSon}(typ.)$	22 m	62 m
I_D	4.9A	-2.9A



SOT23-6

Marking and Pin
Assignments

Schematic Diagram

Features and Benefits

- Advanced trench MOSFET process technology
- Special designed for load switching and battery protection applications
- 150°C operating temperature



Description

It utilizes the latest trench processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avalanche rating. These features combine to make this design an extremely efficient and reliable device for use in load switching and a wide variety of other applications

Absolute Max Rating

Symbol	Parameter	Max.		Units
		N-channel	P-channel	
$I_D @ T_C = 25^\circ C$	Continuous Drain Current, $V_{GS} @ 4.5V$	4.9	-2.9	A
I_{DM}	Pulsed Drain Current	18	-11.6	
$P_D @ T_C = 25^\circ C$	Power Dissipation	1.76	1.76	W
V_{DS}	Drain-Source Voltage	20	-20	V
V_{GS}	Gate-to-Source Voltage	± 8	± 8	V
$T_J \quad T_{STG}$	Operating Junction and Storage Temperature Range	-55 to +150	-55 to +150	$^\circ C$



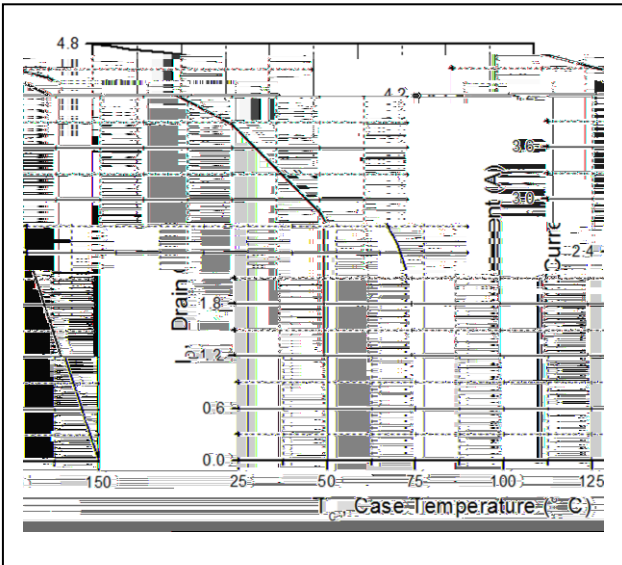
Thermal Resistance

Symbol	Characteristics	Typ.	Max.		Units
			N-channel	P-channel	
R	Junction-to-ambient (71	116	°C /W
	Junction-to-Ambient (PCB mounted, steady-state)		51	56	°C /W

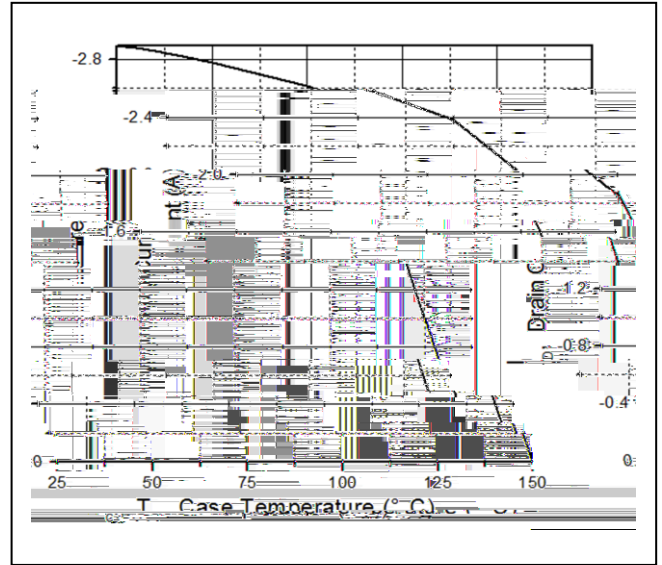
Electrical Characteristics @T_A=25°C unless otherwise specified

Symbol	Parameter		Min.	Typ.	Max.	Units	Conditions
V _{(BR)DSS}	Drain-to-Source breakdown voltage	N-channel	20			V	V _{GS} = 0V, I _D
		P-channel	-20				V _{GS} = 0V, I _D = -
R _{DS(on)}	Static Drain-to-Source on-resistance	N-channel		22	55		V _{GS} =4.5V, I _D = 3.6A
		P-channel		62	80		V _{GS} =-4.5V, I _D = -3A
		N-channel		23	75		V _{GS} =3.5V, I _D = 3.1A
		P-channel		67	100		V _{GS} =-3.5V, I _D = -2A
V _{GS(th)}	Gate threshold voltage	N-channel	0.4		1	V	V _{DS} = V _{GS} , I _D = 250 A
		N-channel	-0.4		-1		V _{DS} = V _{GS} , I _D = -250 A
I _{DSS}	Drain-to-Source leakage current	N-channel			1		V _{DS} = 20V, V _{GS} = 0V
		P-channel			-1		V _{DS} = -20V, V _{GS} = 0V
I _{GSS}	Gate-to-Source forward leakage	N-channel			100	nA	V _{GS} =8V
		N-channel			-100		V _{GS} = -8V
		P-channel			100		V _{GS} =8V
		P-channel			-100		V _{GS} = -8V
C _{iss}	Input capacitance	N-channel		295		pF	V _{GS} = 0V, V _{DS} = 20V,
C _{oss}	Output capacitance	N-channel		50			
C _{rss}	Reverse transfer capacitance	N-channel		39			
C _{iss}	Input capacitance	P-channel		396			V _{GS} = 0V, V _{DS} = -20V,
C _{oss}	Output capacitance	P-channel		53			
C _{rss}	Reverse transfer capacitance	P-channel		46			

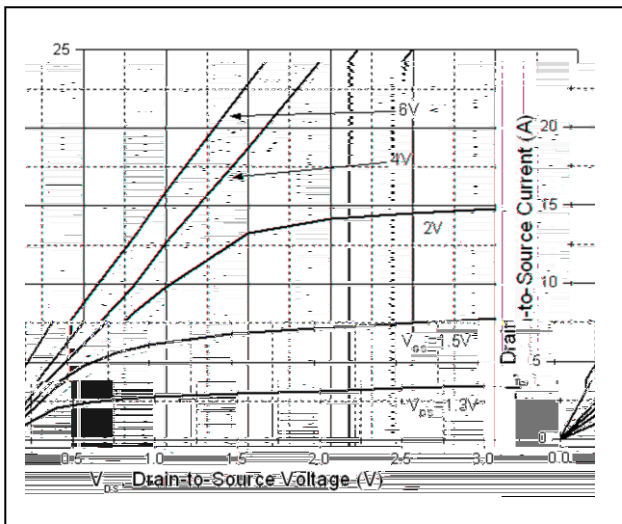
Typical electrical and thermal characteristics



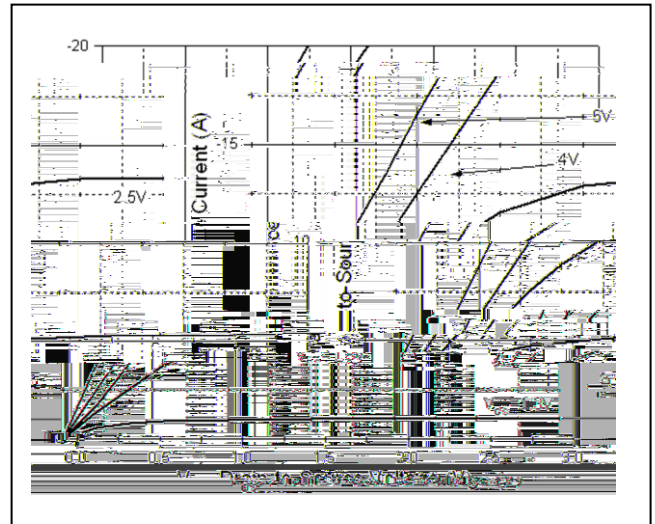
Maximum Drain Current vs. Case Temperature(N-Channel)



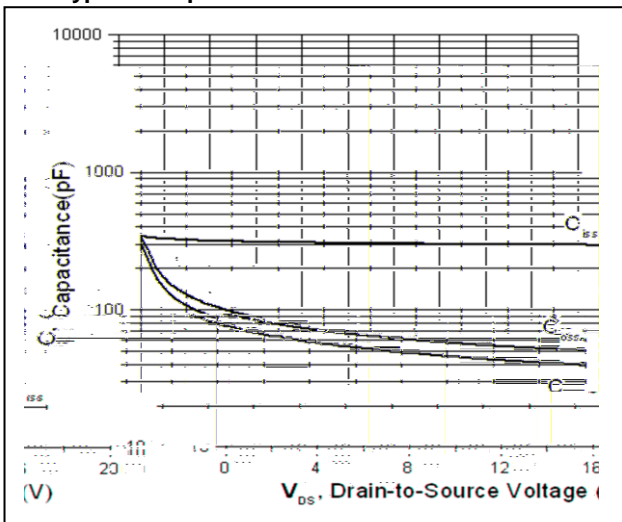
Maximum Drain Current vs. Case Temperature(P-Channel)



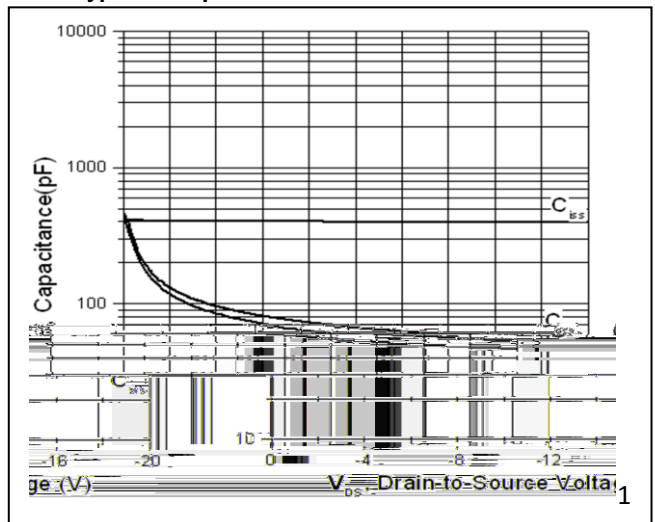
Typical Output Characteristics N-Channel



Typical Output Characteristics P-Channel

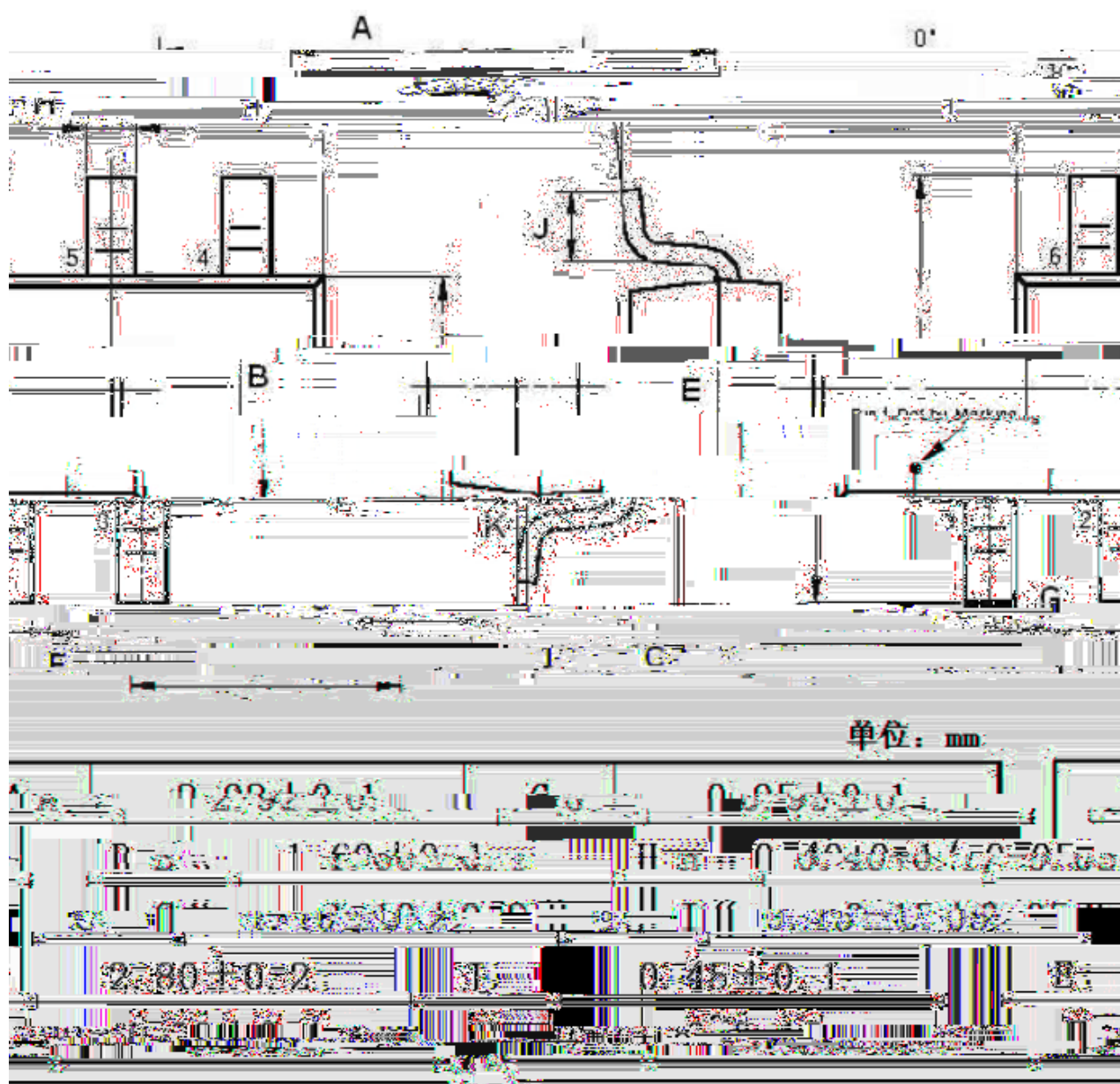


Typical Capacitance vs. Drain-to-Source Voltage(N-Channel)



Typical Capacitance vs. Drain-to-Source Voltage(P-Channel)

Mechanical Data





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