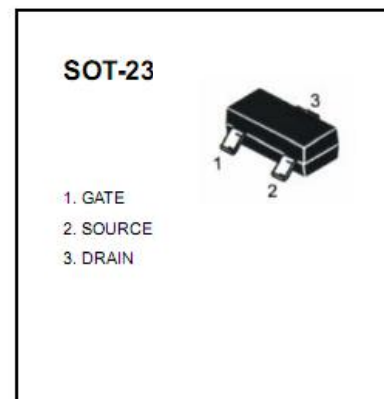
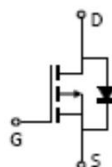


SOT-23 Plastic-Encapsulate MOSET

2333Y MOSFET(P-Channel)

FEATURES

High Power and current handing capability
Lead free product is acquired
Surface Mount Packing



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{DS}	Drain-Source voltage	-12	V
V _{GS}	Gate-Source voltage	±12	V
I _D	Drain current	-6	A
P _D	Power Dissipation	1.6	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =-250uA	-12			V
Gate-Threshold Voltage	V _{th(GS)}	V _{DS} = V _{GS} , I _D =-250 uA	-0.40	-0.65	-1	V
Gate-body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±12V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-12V, V _{GS} =0V			-1	uA
Drain-Source On-Resistance	r _{DS(ON)}	V _{GS} =-4.5V, I _D =-6.0A		19	30	m Ω
		V _{GS} =-2.5V, I _D =-5.0A		26	45	m Ω
Forward Trans conductance	g _{fs}	V _{DS} =-5V, I _D =-6.0A		17		s
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{DS} =-6V, V _{GS} =0V, f=1MHz		1100		pF
Output Capacitance	C _{oss}			390		
Reverse Transfer Capacitance	C _{rss}			300		
Switching Capacitance						
Turn-on Delay Time	t _{d(on)}	V _{DD} =-4V, I _D =-1.0A, V _{GS} =-4.5V R _{GEN} =6 Ω		25		nS
Turn-on Rise Time	t _r			45		nS
Turn-off Delay Time	t _{d(off)}			72		nS
Turn-off Fall Time	t _f			60		nS
Total Gate Charge	Q _g	V _{DS} =-6V, I _D =-6.0A, V _{GS} =-4.5V,		11.5		nC
Gate-Source Charge	Q _{gs}			1.5		nC
Gate-Drain Charge	Q _{gd}			3.2		nC
Drain-Source Diode Characteristics						
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _D =-1.0A			-1.2	V
Diode Forward Current	I _s				-6	A

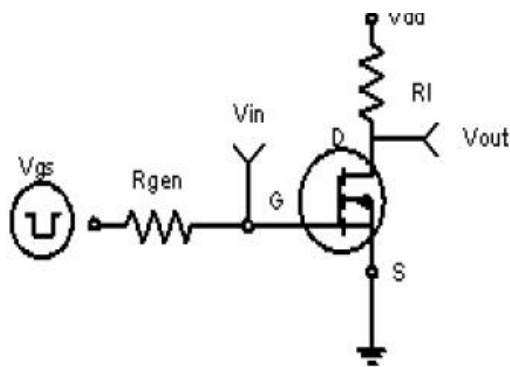


Figure 1: Switching Test Circuit

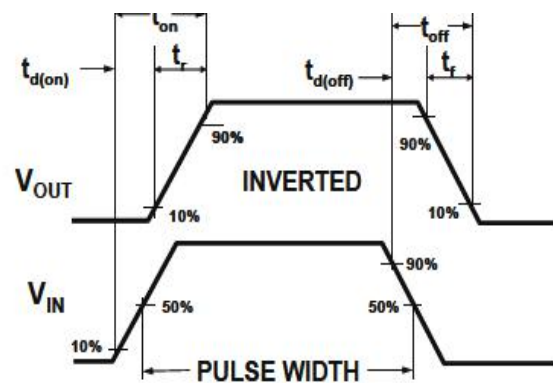


Figure 2: Switching Waveforms

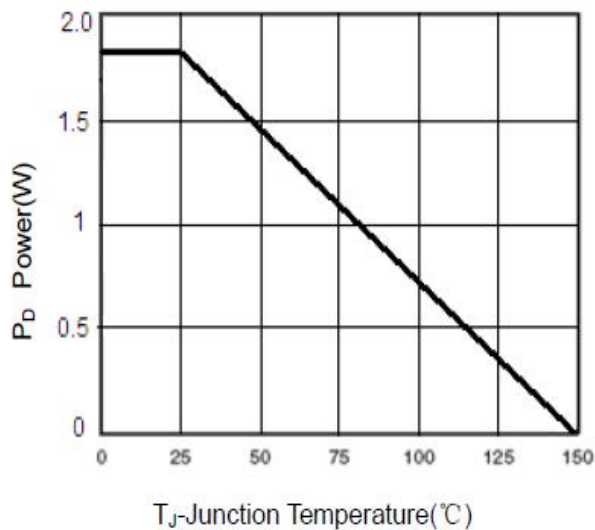


Figure 3 Power Dissipation

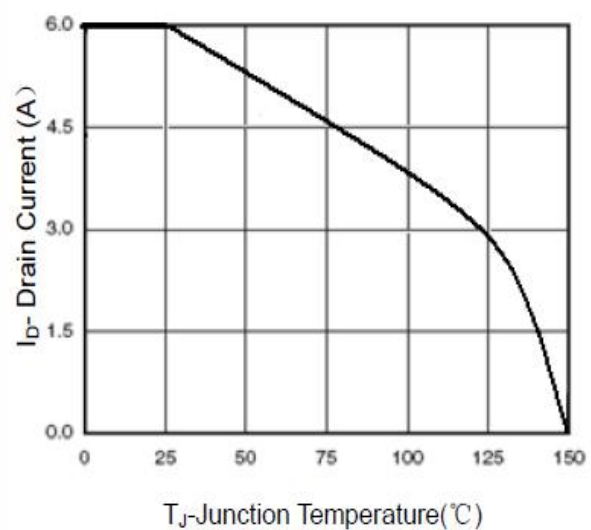


Figure 4 Drain Current

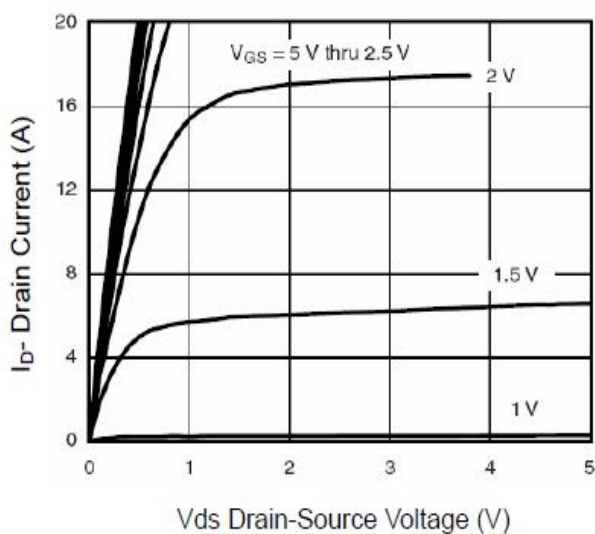


Figure 5 Output Characteristics

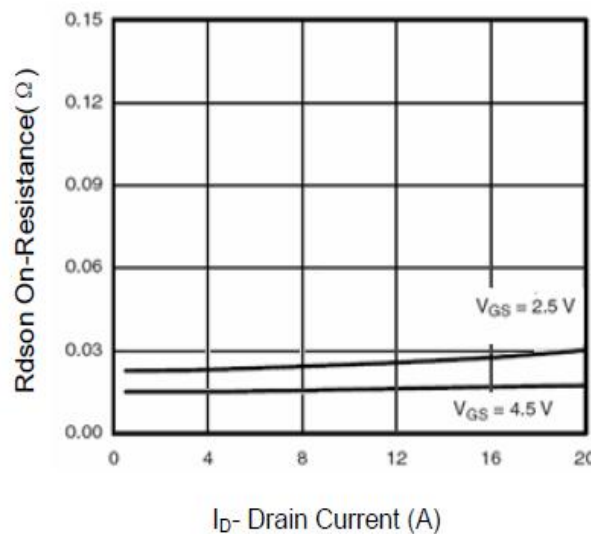


Figure 6 Drain-Source On-Resistance

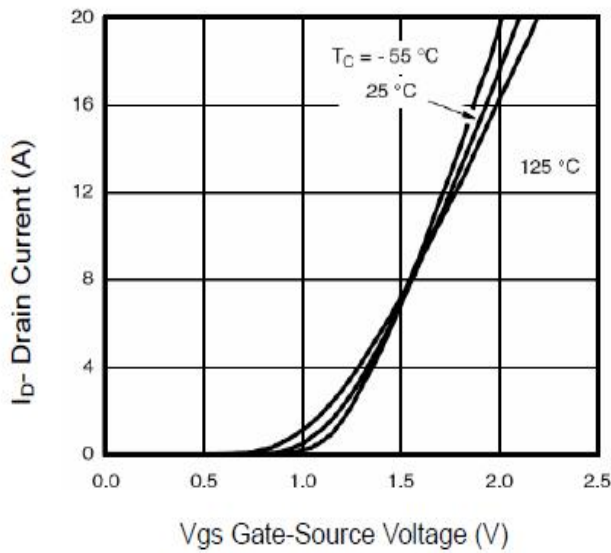


Figure 7 Transfer Characteristics

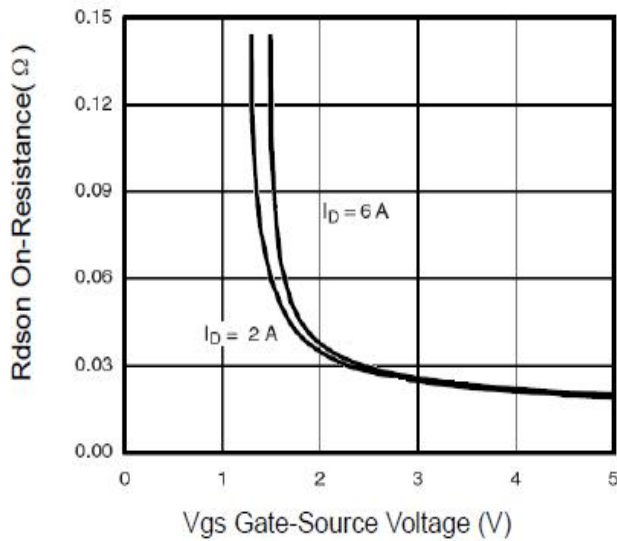
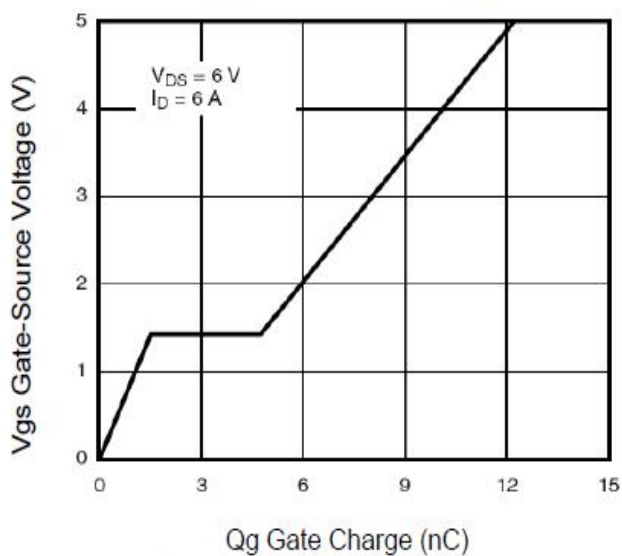
Figure 9 $R_{DS(on)}$ vs V_{GS} 

Figure 11 Gate Charge

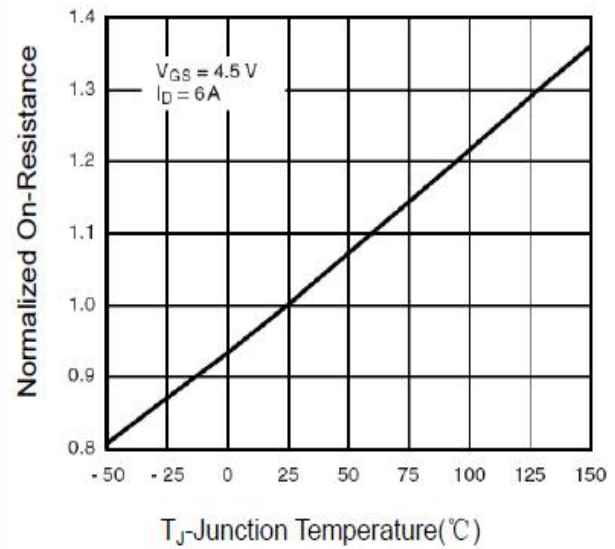


Figure 8 Drain-Source On-Resistance

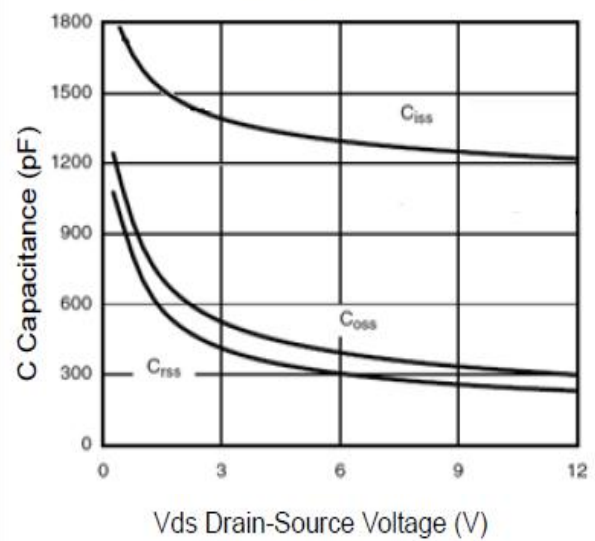
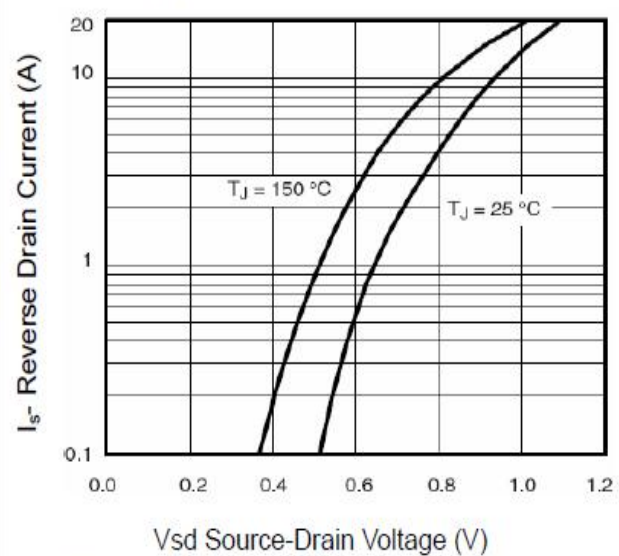
Figure 10 Capacitance vs V_{DS} 

Figure 12 Source-Drain Diode Forward

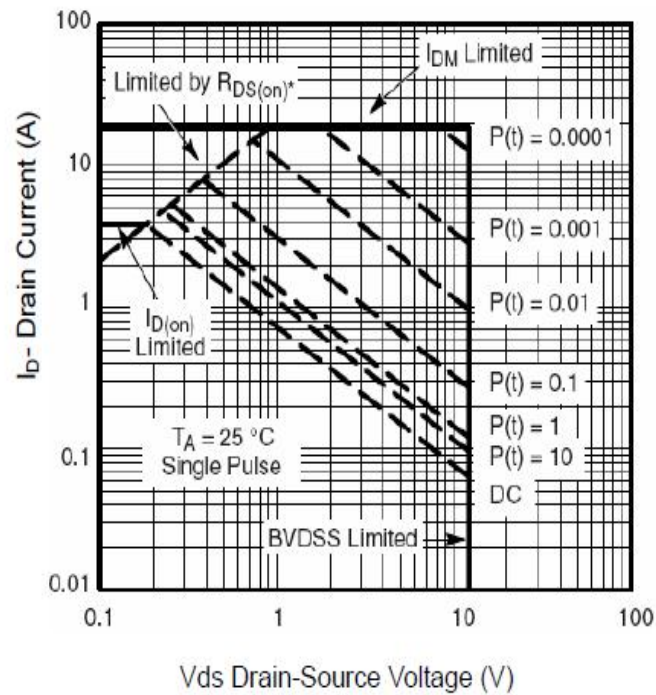


Figure 13 Safe Operation Area

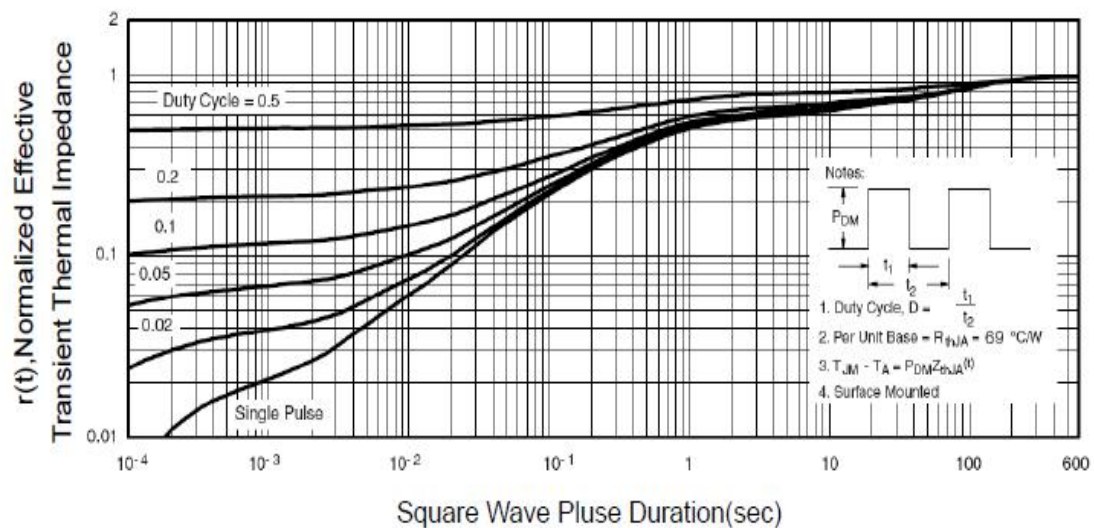
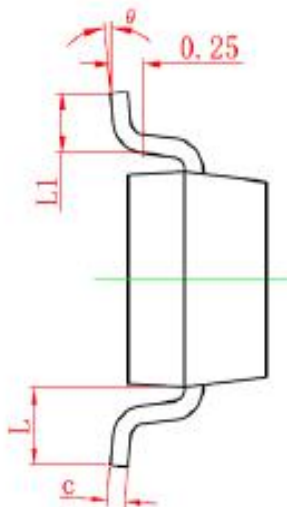
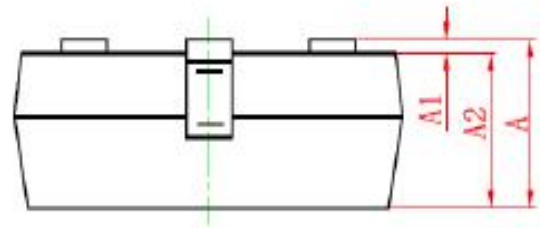
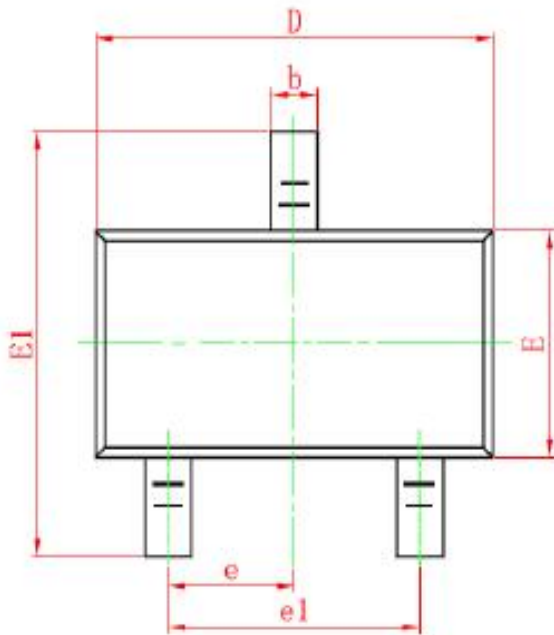


Figure 14 Normalized Maximum Transient Thermal Impedance

SOT-23 PACKAGE INFORMATION

Dimensions in Millimeters (UNIT:mm)



Symbol	Dimensions in Millimeters	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°