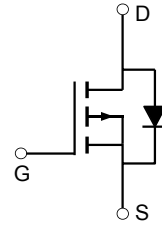


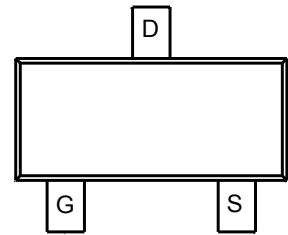
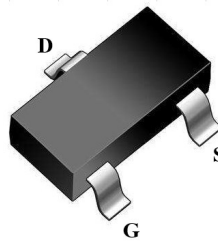
FEATURES

- $R_{DS(on)} = \text{Typ } 26\text{m}\Omega @ V_{GS} = -4.5\text{V}$
- $R_{DS(on)} = \text{Typ } 35\text{m}\Omega @ V_{GS} = -2.5\text{V}$
- Surface Mount Package
- Pb-Free, RoHS Compliant
- P-Channel Switch With Low $R_{DS(on)}$
- Advanced Trench Technology



APPLICATIONS

- DC-DC Converters
- Load/Power Switch
- Interfacing, Logic Switching
- PWM Applications



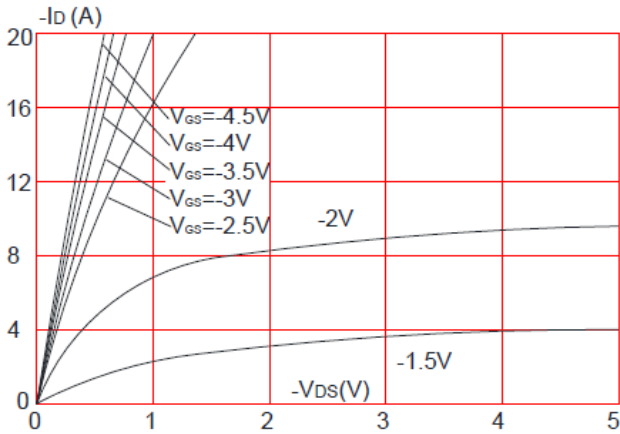
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-12	V
Gate-Source Voltage	V_{GSS}	± 8	V
Continuous Drain Current $T_A = +25^\circ\text{C}$	I_D	-4.1	A
Continuous Drain Current $T_A = +100^\circ\text{C}$		-2.7	
Pulsed Drain Current	I_{DM}	-16	A
Power Dissipation $T_A = +25^\circ\text{C}$	P_D	1	W
Maximum Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_S	-55 to 150	$^\circ\text{C}$
Junction to Ambient	θ_{JA}	125	$^\circ\text{C/W}$

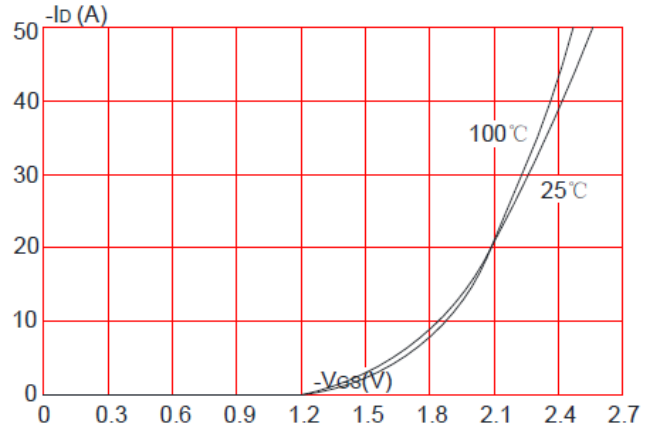
▼ ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain Source Breakdown Voltage	B_{VDSS}	$V_{GS} = 0V, I_D = -250\mu A$	-12			V
Drain to Source Leakage Current	I_{DSS}	$V_{DS} = -12V, V_G = 0V$			-1	μA
Gate Source Leakage	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0V$			± 0.1	μA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-0.4	-0.65	-1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -4.1A$		26	36	m Ω
		$V_{GS} = -2.5V, I_D = -3A$		35	53	
DRAIN-SOURCE DIODE CHARACTERISTICS						
Source Drain Current	I_{SD}	$T_A = 25^{\circ}\text{C}$			-4.1	A
Diode Forward Voltage	V_{SD}	$V_{GS} = 0V, I_S = -4.1A$			-1.2	V
Diode Reverse Recovery	t_{rr}	$V_{GS} = 0V$ $I_S = -4.1A$ $di/dt = 100A/\mu S$		20		nS
Diode Reverse Recovery	Q_{rr}			9		nC
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	$V_{DS} = -4V$ $V_{GS} = 0V,$ $f = 1\text{MHz}$		905		pF
Output Capacitance	C_{oss}			210		pF
Reverse Transfer Capacitance	C_{rss}			195		pF
Total Gate Charge	Q_g	$V_{DS} = -4V$ $I_D = -4.1A$ $V_{GS} = -4.5V$		7.8	15	nC
Gate Source Charge	Q_{gs}			1.2		nC
Gate-Drain Charge	Q_{gd}			1.6		nC
SWITCHING CHARACTERISTICS						
Turn-on Delay Time	$t_{d(on)}$	$V_{DS} = -4V$ $I_D = -3.3A$ $V_{GEN} = -4.5V$ $R_G = 1\Omega$ $R_L = 1.2\Omega$		13	20	nS
Turn-on Rise Time	t_r			35	53	nS
Turn-off Delay Time	$t_{d(off)}$			32	48	nS
Turn-off Fall Time	t_f			10	20	nS

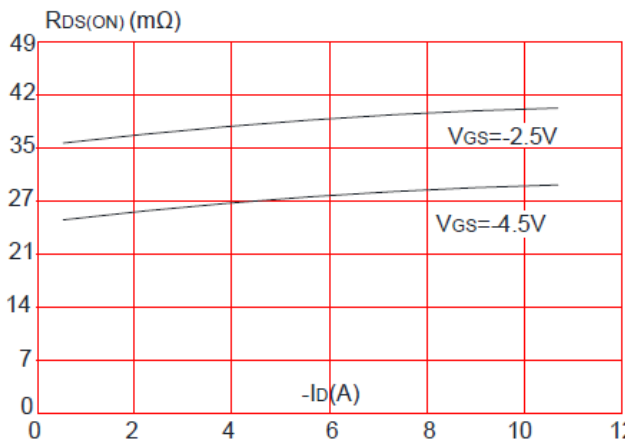
PERFORMANCE CHARACTERISTICS



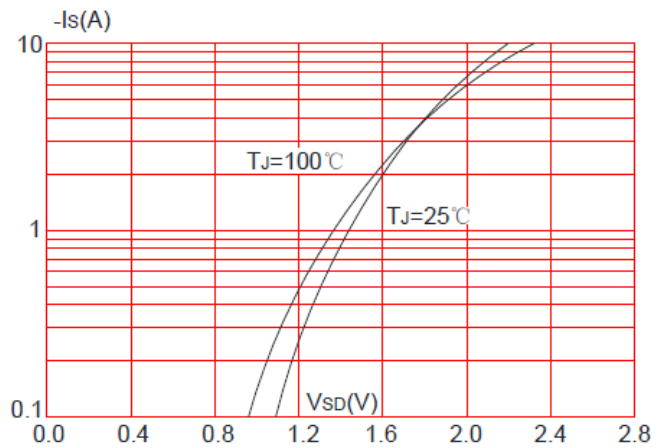
Output Characteristics



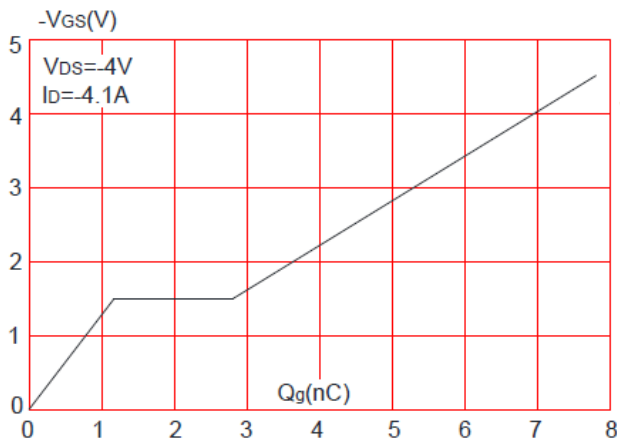
Typical Transfer Characteristics



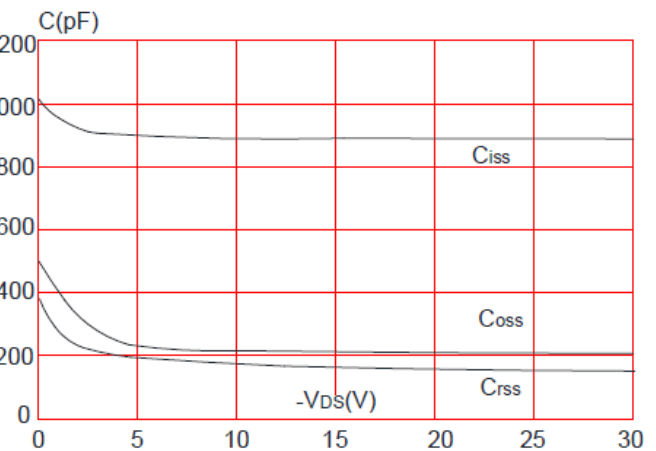
On-Resistance VS. V_{GS}



Body Diode Characteristics

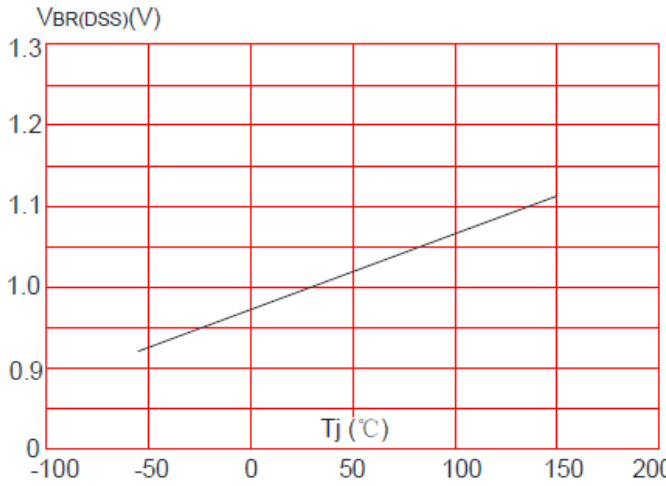


Gate Charge Characteristics

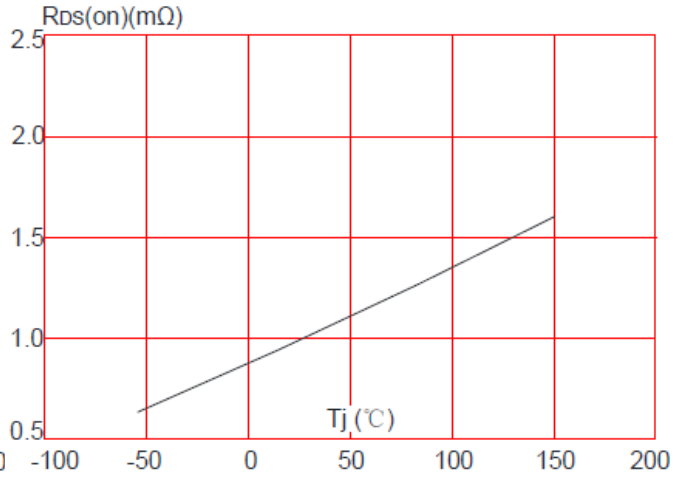


Capacitance Characteristics

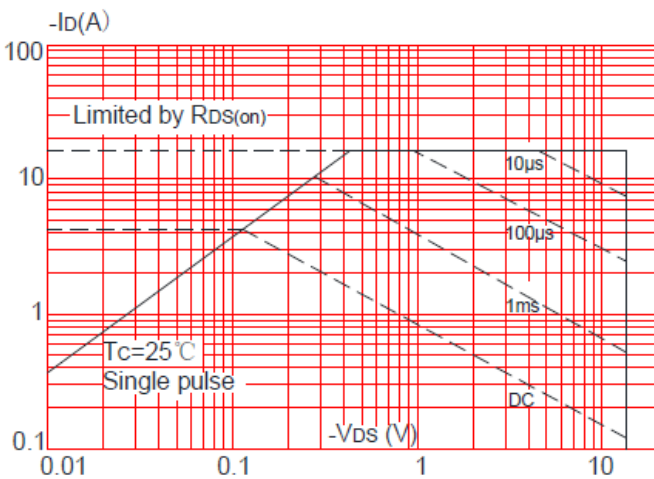
PERFORMANCE CHARACTERISTICS(Continued)



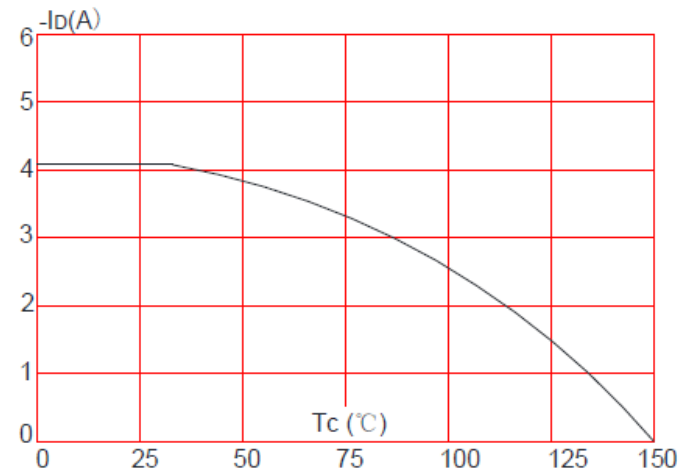
Normalized Breakdown Voltage VS. Junction Temperature



Normalized on Resistance VS. Junction Temperature



Safe Operating Area



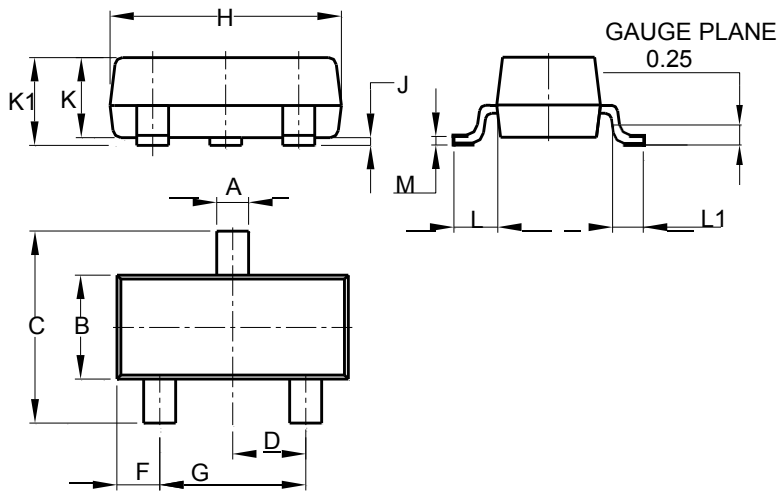
Maximum Continuous Drain Current VS. Case Temperature

ORDERING INFORMATION

Standard Part NO.	Package	Packing	Min. Quantity
AMP2305B-AAA	SOT23	Tape & Reel	3000PCS

PACKAGE INFORMATION

- SOT23



SOT23		
Dim	Min	Max
A	0.370	0.510
B	1.200	1.400
C	2.300	2.500
D	0.890	1.030
F	0.450	0.600
G	1.780	2.050
H	2.800	3.000
J	0.013	0.100
K	0.890	1.000
K1	0.930	1.100
L	0.450	0.610
L1	0.250	0.550
M	0.085	0.150

All Dimensions in mm