

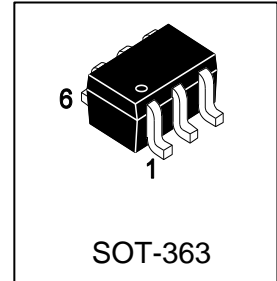
BSS260D

S-BSS260D

N-Channel 60-V Power Mosfet

1. FEATURES

- High speed switch
- ESD protected
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

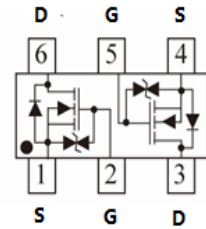


2. APPLICATION

- Portable appliances
- Load switch appliances

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
BSS260D	J3	3000/Tape&Reel



4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDSS	60	Vdc
Gate-to-Source Voltage – Continuous	VGS	±20	Vdc
Drain Current			mAdc
– Continuous TA = 25°C	ID	200	
– Pulsed (tp ≤ 10µs)	IDM	800	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	380	mW
		3.05	mW/°C
Thermal Resistance, Junction-to-Ambient(Note 1)	RθJA	328	°C/W
Junction and Storage temperature	TJ, Tstg	-55~+150	°C
Maximum Lead Temperature for Solde Purposes, for 10 seconds	TL	260	°C

1. FR-4 = 1.0×0.75×0.062 in.



6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Drain–Source Breakdown Voltage (VGS = 0, ID = 250μAdc)	VBRDSS	60	-	-	Vdc
Zero Gate Voltage Drain Current (VGS = 0, VDS = 55 Vdc)	IDSS	-	-	0.1	μAdc
Gate–Body Leakage Current, Forward (VGS=20V, VDS=0V)	IGSSF	-	-	5	μAdc
Gate–Body Leakage Current, Reverse (VGS= -20V, VDS=0V)	IGSSR	-	-	-5	μAdc

ON CHARACTERISTICS (Note 2)

Gate Threshold Voltage (VDS=VGS,IDS=250μA)	VGS(th)	0.5	-	1.0	Vdc
Static Drain–Source On–State Resistance (VGS=10V,IDS=0.5A) (VGS=4.5V,ID=0.1A) (VGS=2.5V, IDS=0.05A) (VGS=1.8V, IDS=0.01A)	RDS(on)	-	-	1.44 2 2.5 3	Ohms
Diode Forward Voltage (ISD = 0.5 A, VGS = 0 V)	VSD	0.5	-	1.35	Vdc

DYNAMIC CHARACTERISTICS

Input Capacitance (VDS = 25 Vdc, VGS = 0, f = 1.0 MHz)	Ciss	-	22.8	-	pF
Output Capacitance (VDS = 25 Vdc, VGS = 0, f = 1.0 MHz)	Coss	-	3.5	-	pF
Reverse Transfer Capacitance (VDS = 25 Vdc, VGS = 0, f = 1.0 MHz)	Crss	-	2.9	-	pF

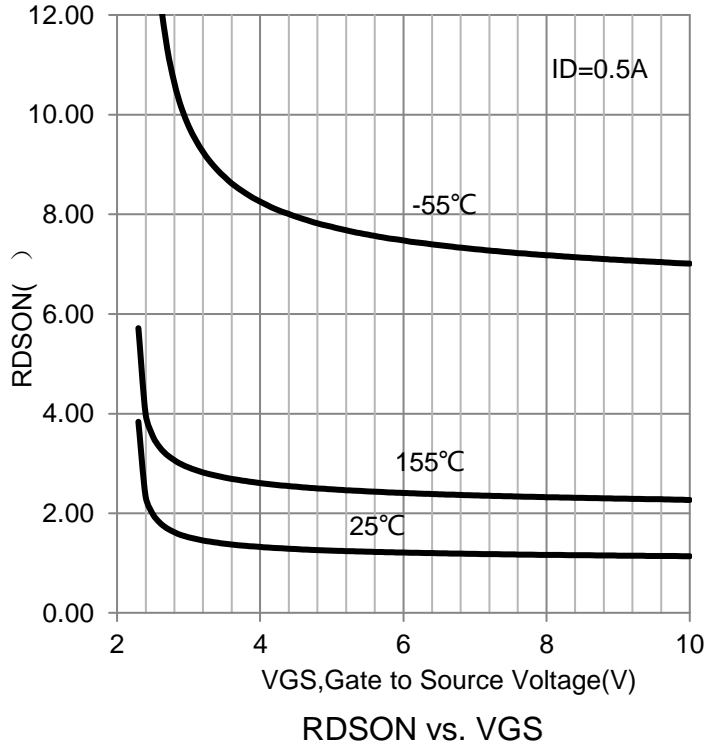
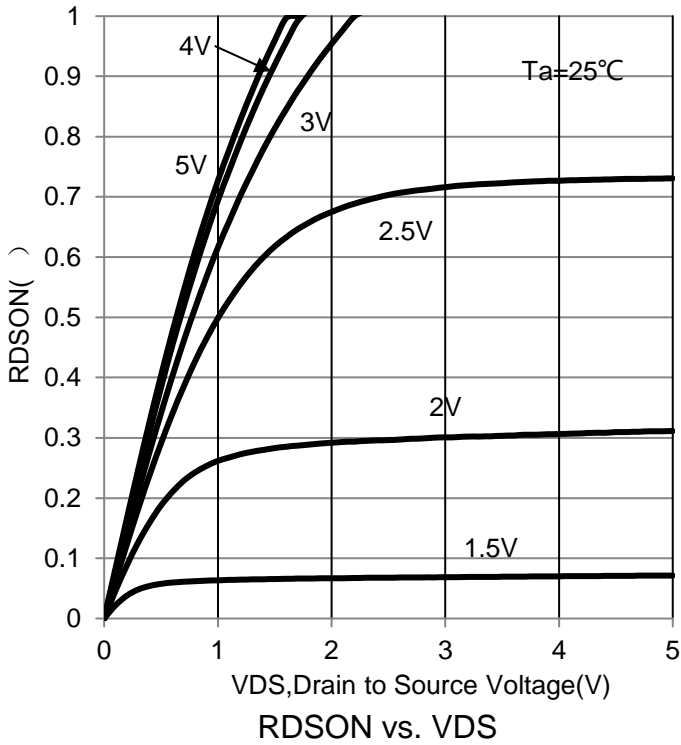
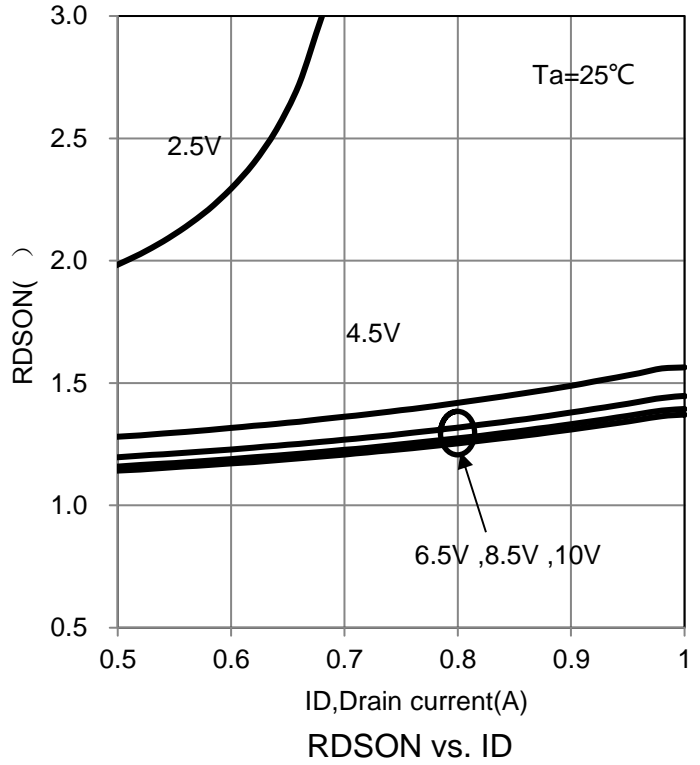
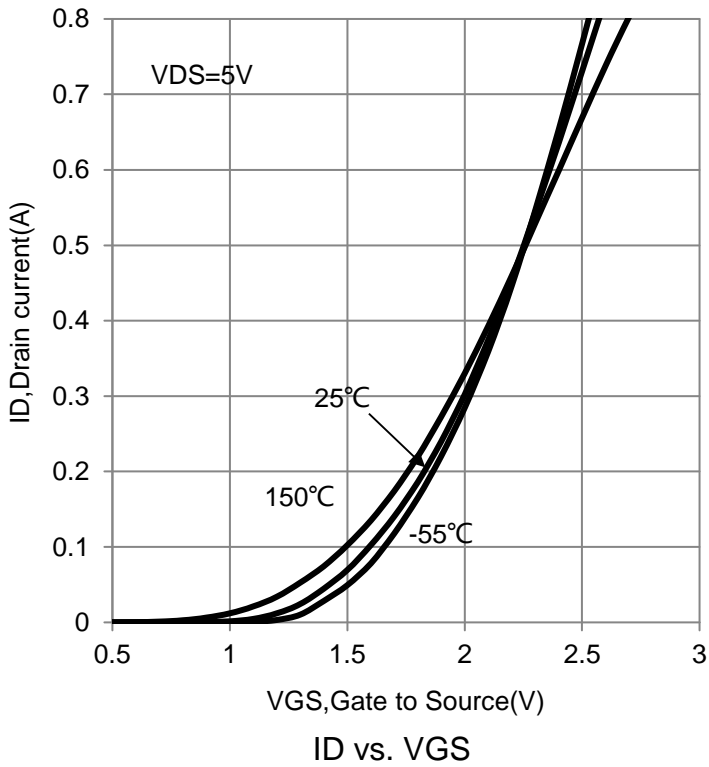
SWITCHING CHARACTERISTICS

Turn-On Delay Time	(VDD = 30 Vdc , VGEN = 10 V, RG =25Ω ,RL =60 Ω, ID =500 mAdc)	td(on)	-	3.8	-	ns
Turn-Off Delay Time		td(off)	-	19	-	

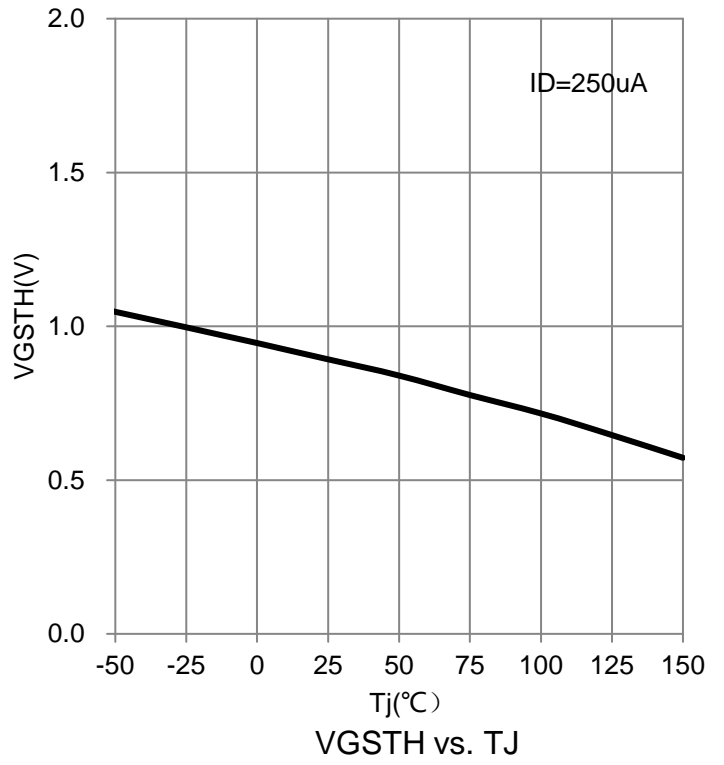
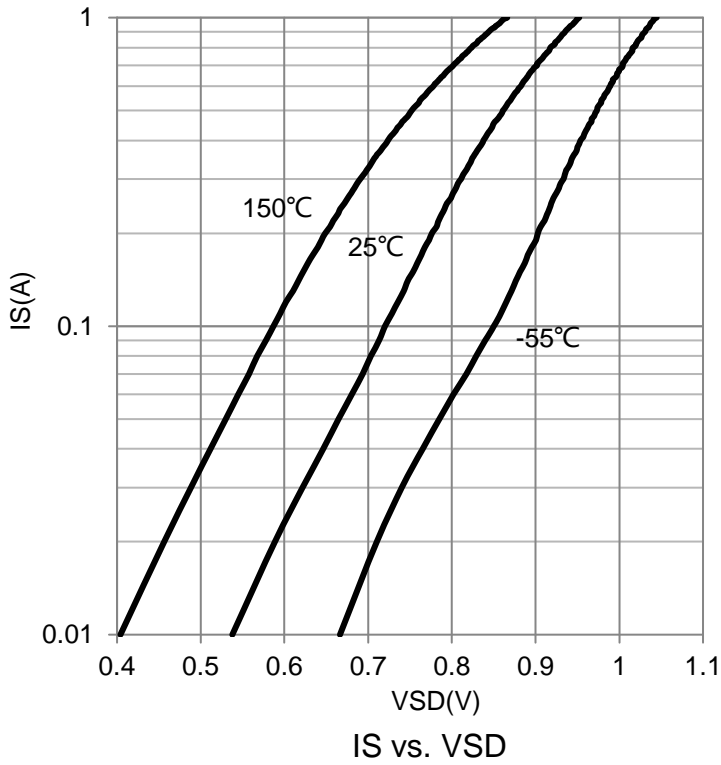
2.Pulse Test: Pulse Width $\leq 300 \mu s$, Duty Cycle $\leq 2.0\%$.



7. ELECTRICAL CHARACTERISTICS CURVES



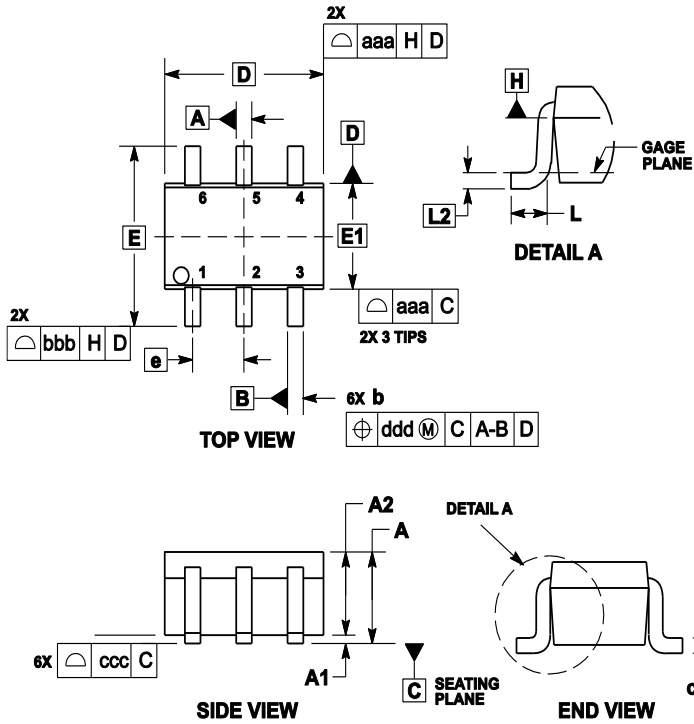
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



8. OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	---	---	1.10	---	---	0.043
A1	0.00	---	0.10	0	---	0.004
A2	0.70	0.90	1.00	0.027	0.035	0.039
b	0.15	0.20	0.25	0.006	0.008	0.01
C	0.08	0.15	0.22	0.003	0.006	0.009
D	1.80	2.00	2.20	0.07	0.078	0.086
E	2.00	2.10	2.20	0.078	0.082	0.086
E1	1.15	1.25	1.35	0.045	0.049	0.053
e	0.65 BSC			0.026 BSC		
L	0.26	0.36	0.46	0.010	0.014	0.018
L2	0.15 BSC			0.006 BSC		
aaa	0.15			0.01		
bbb	0.30			0.01		
ccc	0.10			0.00		
ddd	0.10			0.00		

9. SOLDERING FOOTPRINT

