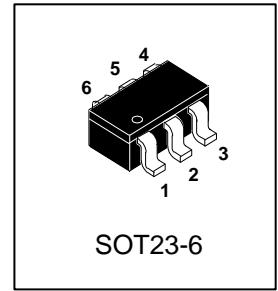


# DP3407T1G

## P-Channel Enhancement-Mode MOSFET

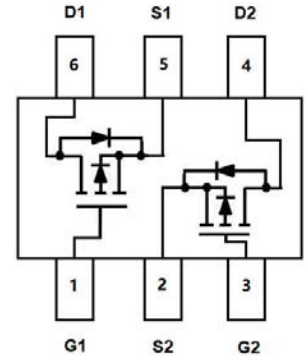
### 1. FEATURES

- VDS = -30V
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
DP3407	A07	3000/Tape&Reel



### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDSS	-30	V
Gate-to-Source Voltage	VGS	±20	V
Continuous Drain Current	ID	Ta=25°C	-3.5
		Ta=70°C	-2.5
Pulsed Drain Current(Note 1)	IDM	-15	A
Avalanche Current(L=0.1mH)	IAS	9	A
Avalanche energy(L=0.1mH)	EAS	4.05	mJ
Power Dissipation	PD	Ta=25°C	0.55
		Ta=70°C	0.35
Junction and Storage Temperature Range	Tj,Tstg	-55~+150	°C

1.Repetitive rating, pulse width limited by junction temperature.

### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Thermal Resistance,Junction-to-Ambient (Note 2)	RθJA	83	°C/W
Thermal Resistance,Junction-to-Ambient (Steady State)	RθJA	210	

2. Surface Mounted on 1 in<sup>2</sup>FR4 Board with 2oz copper

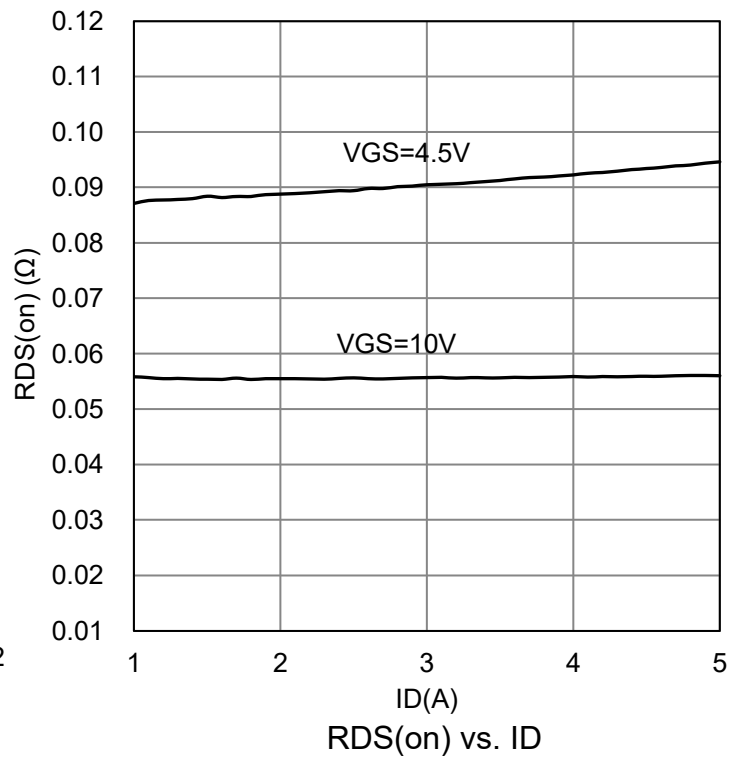
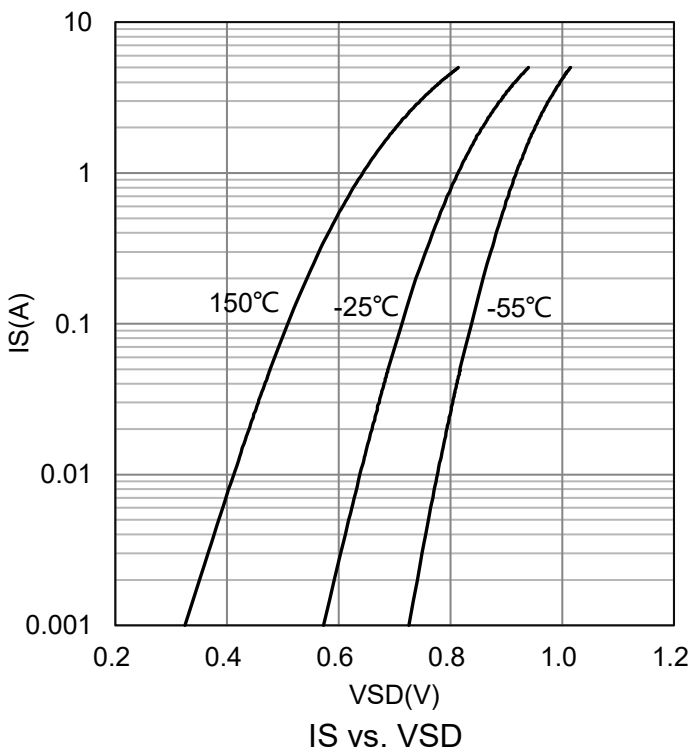
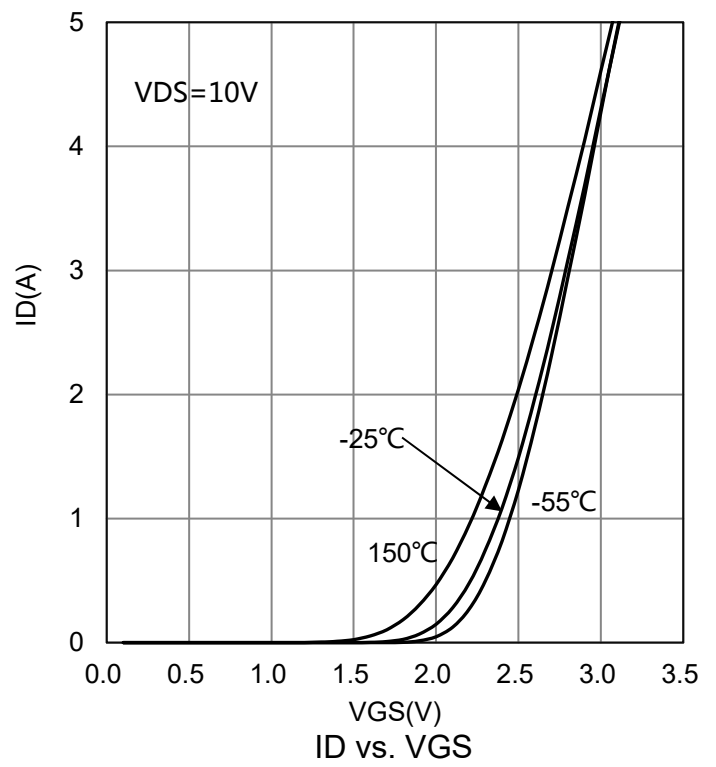
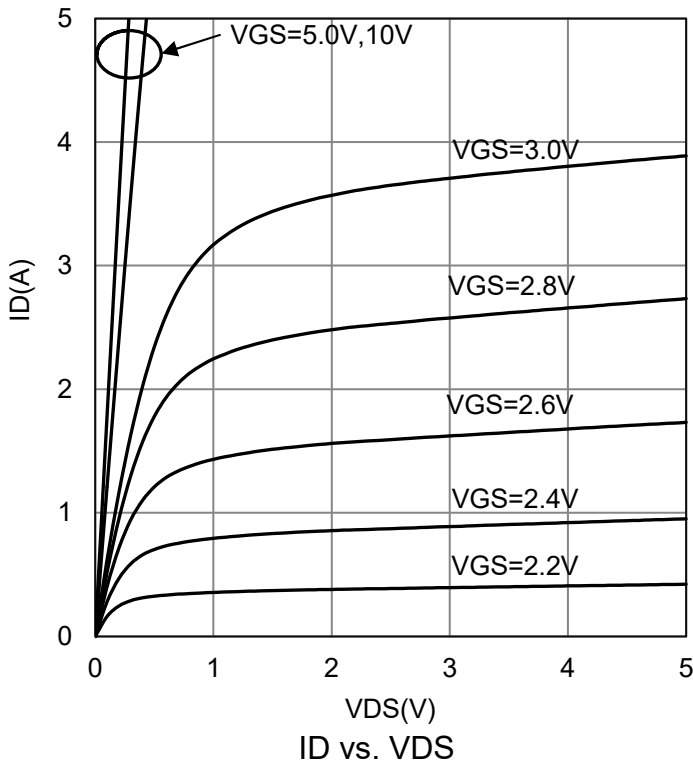


**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

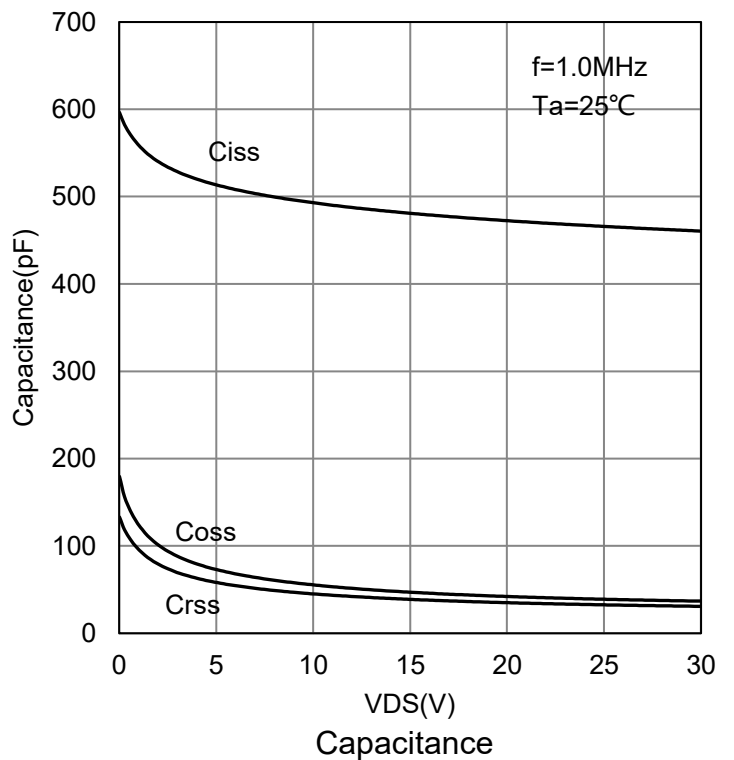
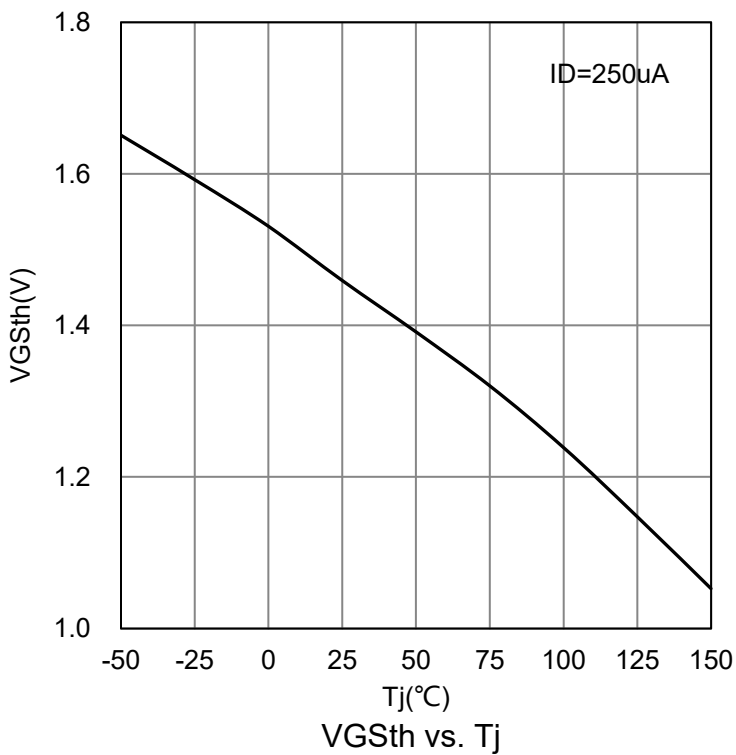
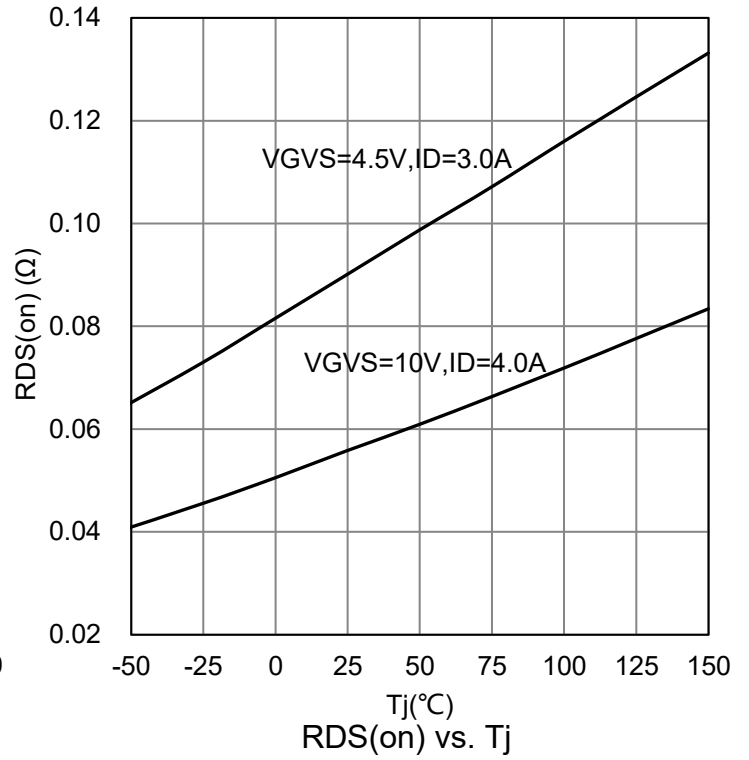
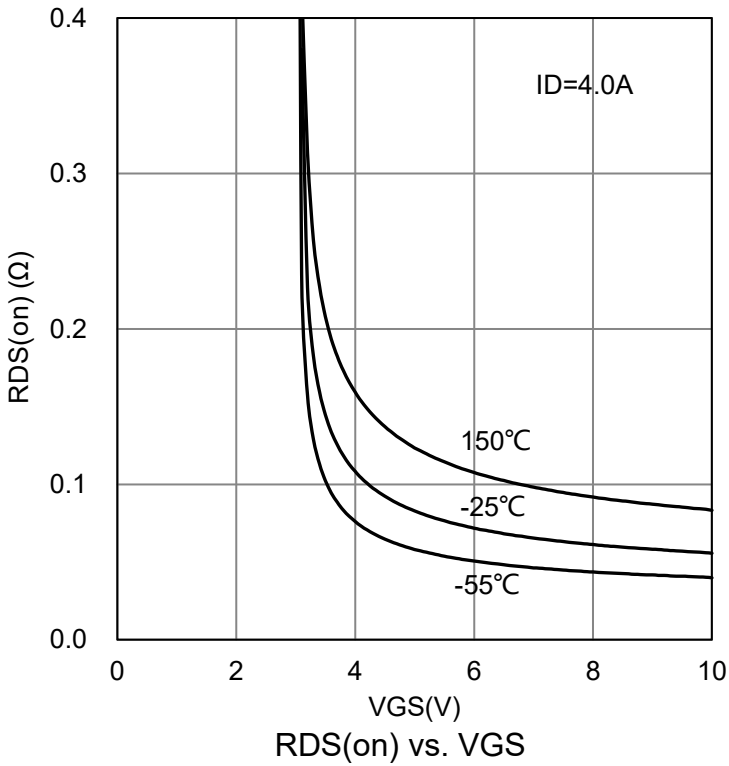
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
<b>STATIC</b>						
Drain–Source Breakdown Voltage (VGS = 0, ID = -250μA)	VBRDSS	-30	-	-	V	
Zero Gate Voltage Drain Current (VGS = 0, VDS = -24 V)	IDSS	-	-	-1	μA	
Gate Leakage Current (VDS =0V, VGS =±20V)	IGSS	-	-	±100	nA	
Gate Threshold Voltage (VDS = VGS, ID = -250μA)	VGS(th)	-1	-1.5	-2	V	
Static Drain–Source On–State Resistance (VGS =-10V, ID =-4A) (VGS =-4.5V, ID =-3A)	RDS(on)	-	72 120	91 165	mΩ	
Forward Voltage (VGS = 0 V, IS = -1A)	VSD	-	-0.7	-1.3	V	
<b>DYNAMIC</b>						
Input Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)	Ciss	-	481	-	pF	
Output Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)	Coss	-	47	-		
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)	Crss	-	39	-		
Gate resistance (VGS =0V, VDS =0V, f=1MHz)	Rg	-	19.6	-	Ω	
Total Gate Charge	(VGS =-10V, VDS =-15V, ID =-4A)	Qg(10V)	-	7.6	-	nC
Total Gate Charge		Qg(4.5V)	-	3.7	-	
Gate-Source Charge		Qgs	-	1.25	-	
Gate-Drain Charge		Qgd	-	1.27	-	
Turn-On Delay Time	(VDS = -15V, RL= 3.6 Ω,VGS = -10V,RG = 3Ω)	td(on)	-	3.6	-	ns
Rise Time		tr	-	10.4	-	
Turn-Off Delay Time		td(off)	-	19	-	
Fall Time		tf	-	7	-	

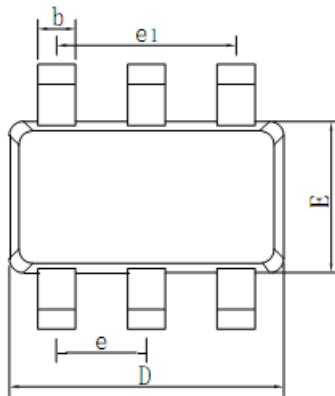
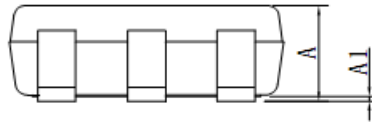
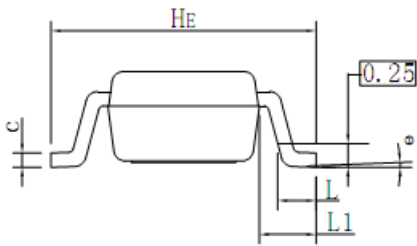


**6.ELECTRICAL CHARACTERISTICS CURVES**

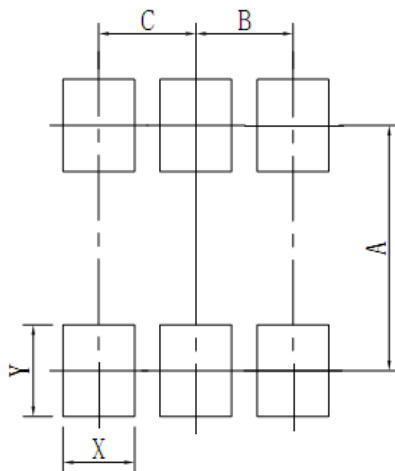


**6.ELECTRICAL CHARACTERISTICS CURVES(Con.)**



**7.OUTLINE AND DIMENSIONS**
**SOT23-6**


SOT23-6			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.25	0.40	0.50
c	0.10	0.17	0.26
D	2.80	2.90	3.10
E	1.30	1.60	1.70
e	0.85	0.95	1.05
e1	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.50	2.80	3.00
θ	0°	-	10°

**8.SOLDERING FOOTPRINT**


SOT23-6	
DIM	(mm)
X	0.70
Y	0.90
A	2.40
B	0.95
C	0.95

