

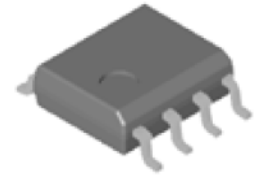
LP4217T1G

20V P-Channel (D-S) MOSFET

SOP-8

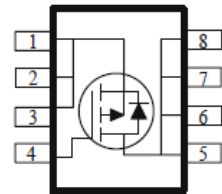
1. FEATURES

- VDS = -20V
RDS(ON) ≤ 26mΩ, VGS@-4.5V.
RDS(ON) ≤ 34mΩ, VGS@-2.5V.
- Low RDS(ON) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



2. APPLICATIONS

- Load Switches
- DC/DC Conversion
- Motor Drives



3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LP4217T1G	LP4217	4000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit	
Drain-Source Voltage	VDS	-20	V	
Gate-Source Voltage	VGS	± 10		
Continuous Drain Current (Note1)	ID	-7	A	
Pulsed Drain Current (Note2)	IDM	-30		
Power Dissipation (Note1)	PD	TA = 25°C	2	W
		TA = 70°C	1.5	
Operating Junction and Storage Temperature Range	TJ , Tstg	-55~+150	°C	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Thermal Resistance,Junction-to-Ambient (Note 1)	RθJA	60	°C/W
Thermal Resistance,Junction-to-Case	RθJC	12	°C/W

1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.

2.Pulse width limited by maximum junction temperature

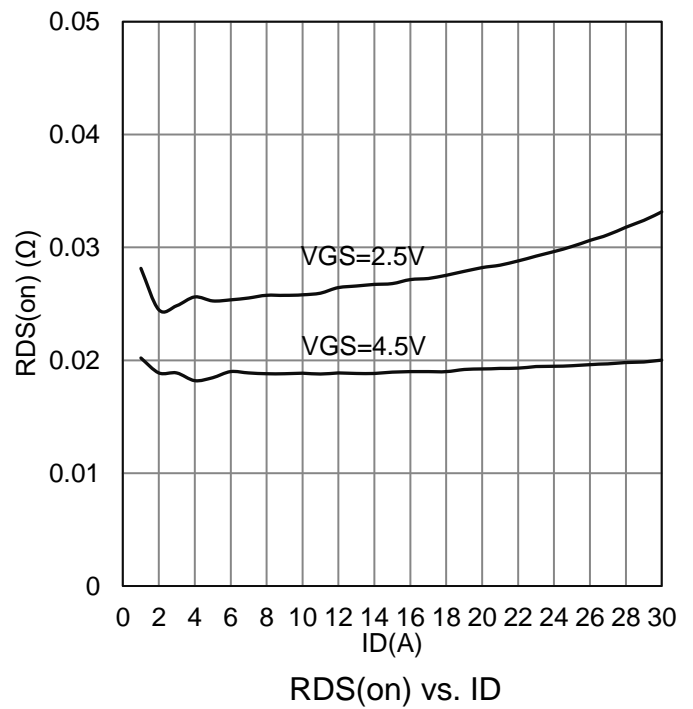
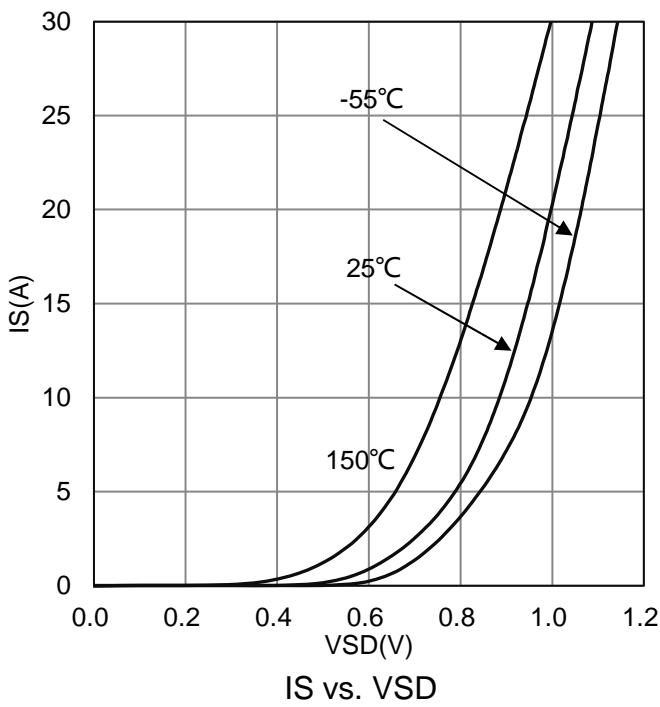
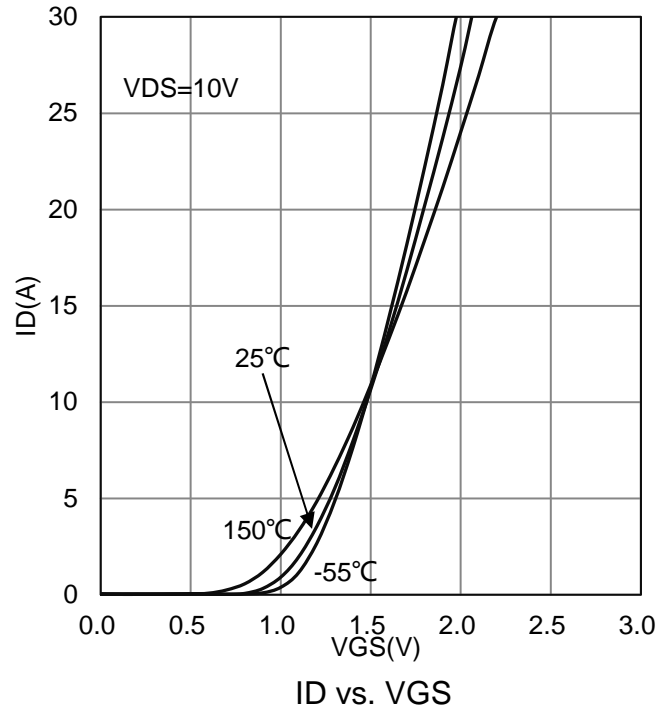
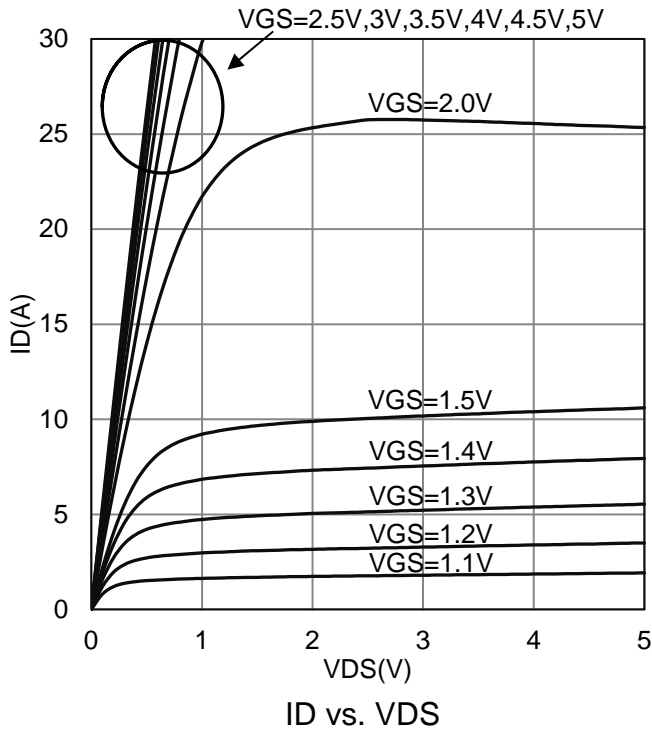
6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS = 0 V, ID = -250 μ A)	V(BR)DSS	-20	-	-	V	
Gate Threshold Voltage (VDS = VGS, ID = -250 μ A)	VGS(th)	-0.4	-	-0.9	V	
Gate Leakage Current (VDS = 0 V, VGS = \pm 10 V)	IGSS	-	-	\pm 10	μ A	
Zero Gate Voltage Drain Current (VDS = -16 V, VGS = 0 V)	IDSS	-	-	-1	μ A	
Drain-Source On-Resistance(Note 3) (VGS = -4.5 V, ID = -7 A) (VGS = -2.5 V, ID = -5.6 A)	RDS(ON)	-	19 24	26 34	m Ω	
Diode Forward Voltage(Note 3) (IS = -2.5 A, VGS = 0 V)	VSD	-	-	-1.3	V	
Dynamic (Note 4)						
Total Gate Charge	(VDS = -10 V, VGS = -4.5 V, ID = -7 A)	Qg	-	30	-	nC
Gate-Source Charge		Qgs	-	4	-	
Gate-Drain Charge		Qgd	-	6	-	
Turn-On Delay Time	(VDS = -10 V, RL = 1.4 Ω , ID = -7 A, VGEN = -4.5 V, RGEN = 6 Ω)	td(on)	-	6	-	ns
Rise Time		tr	-	12	-	
Turn-Off Delay Time		td(off)	-	85	-	
Fall Time		tf	-	35	-	
Input Capacitance	(VDS = -15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	1629	-	pF
Output Capacitance		Coss	-	198	-	
Reverse Transfer Capacitance		Crss	-	192	-	

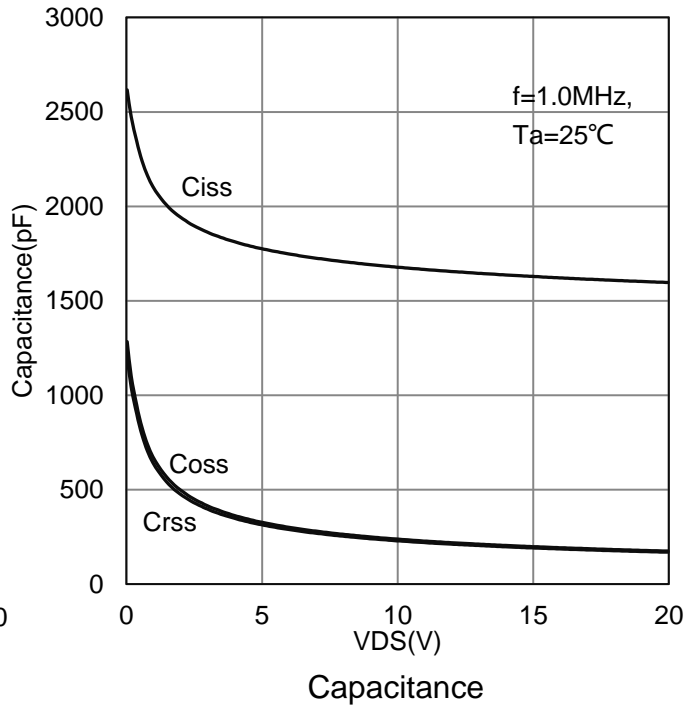
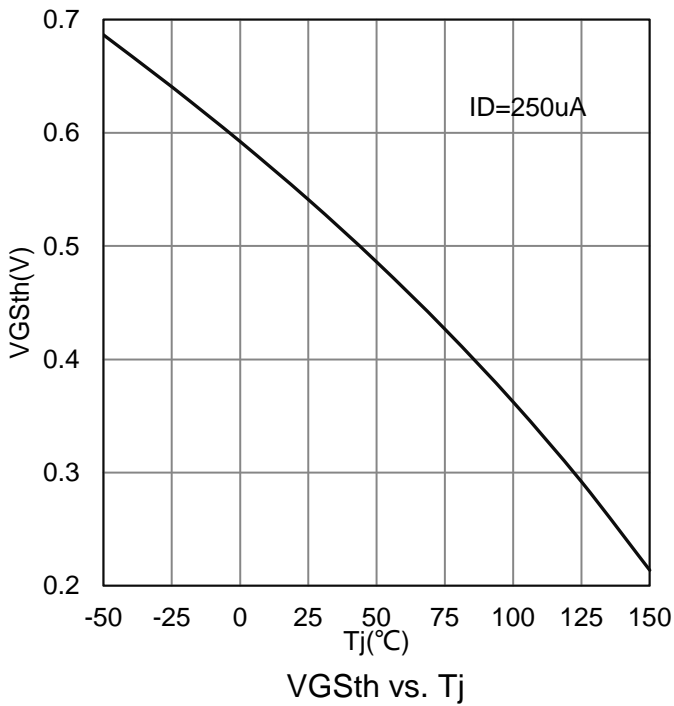
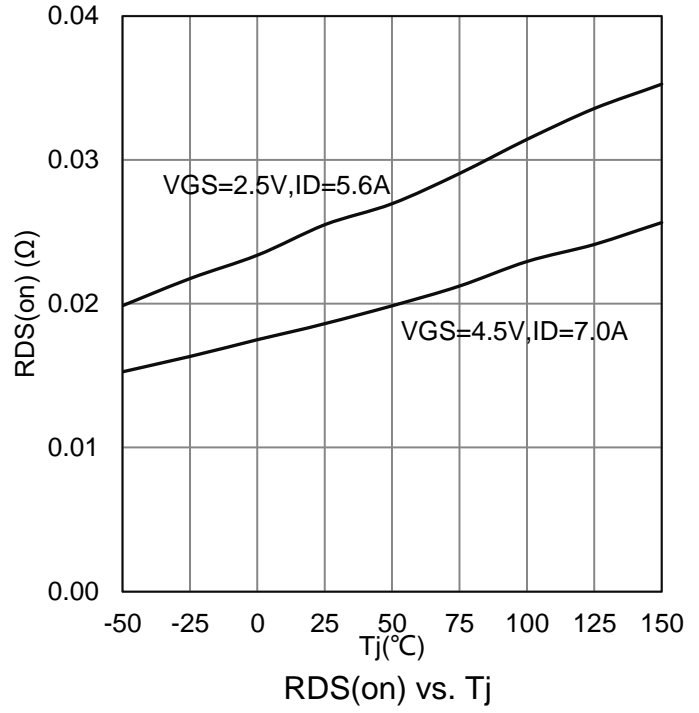
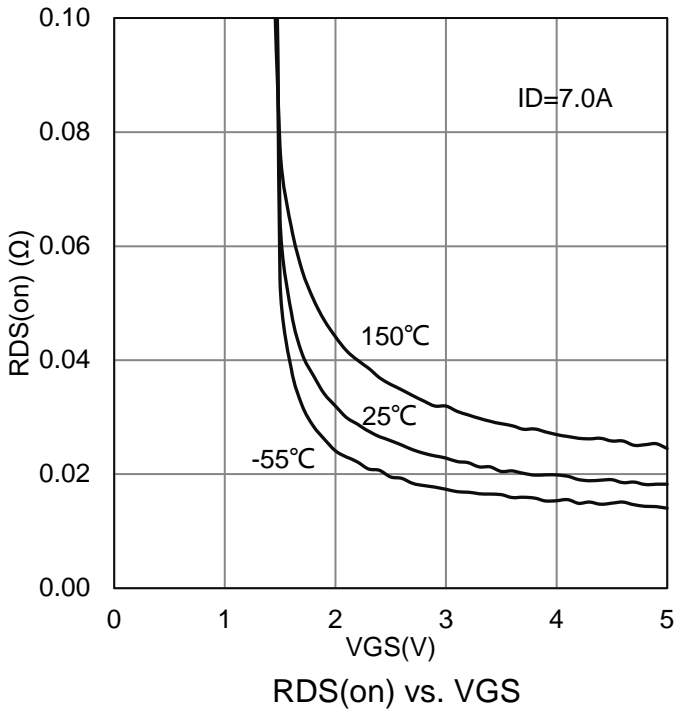
3. Pulse test; pulse width \leq 300 μ s, duty cycle \leq 2%

4. Guaranteed by design, not subject to production testing.

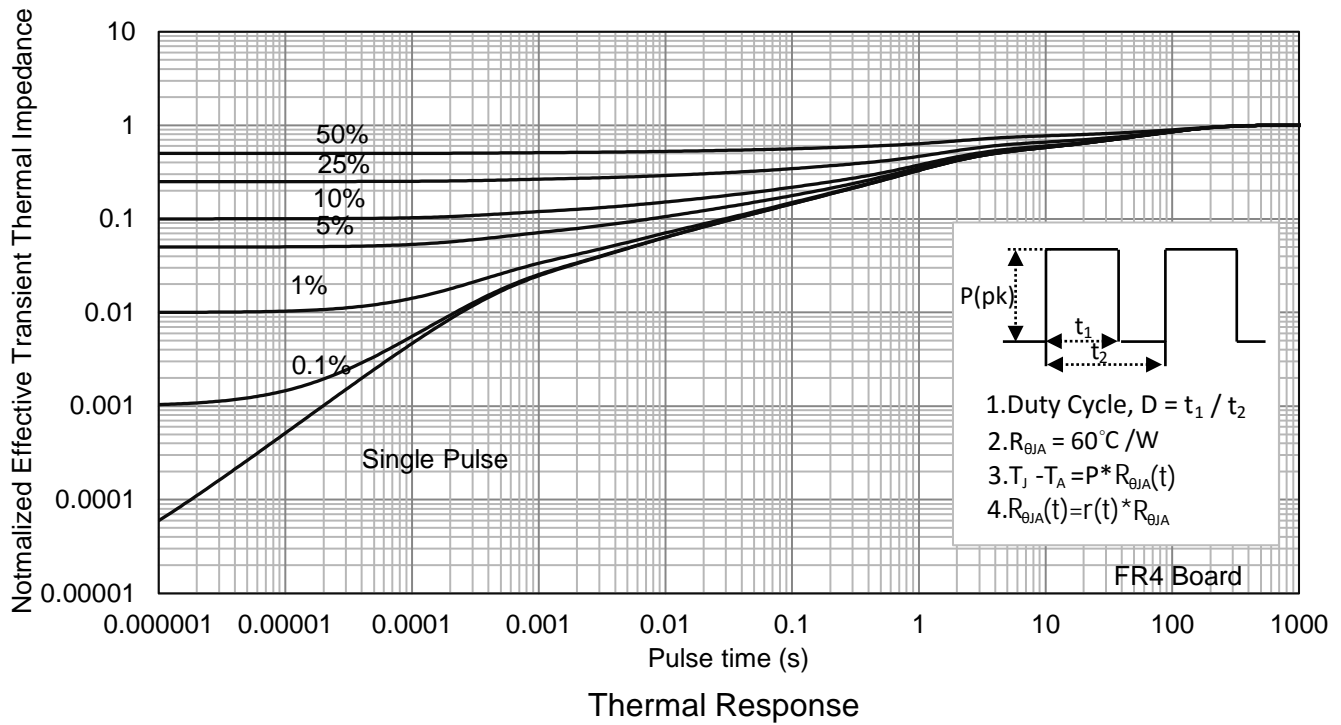
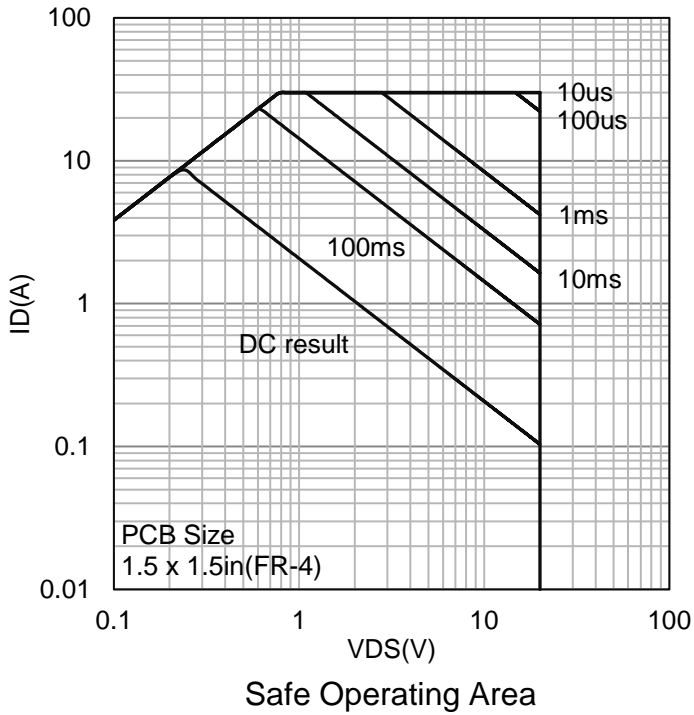
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

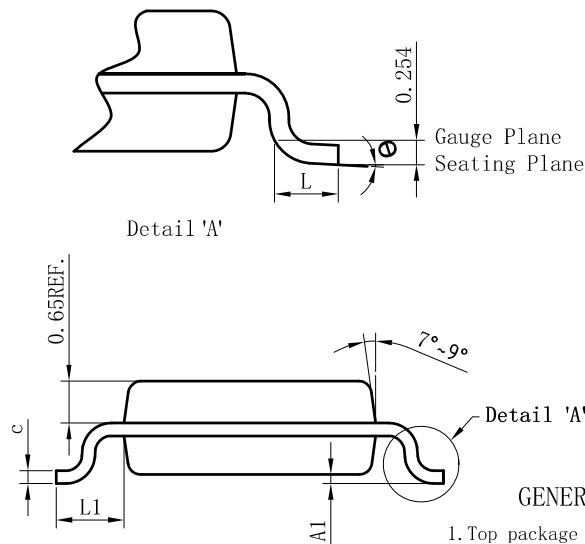
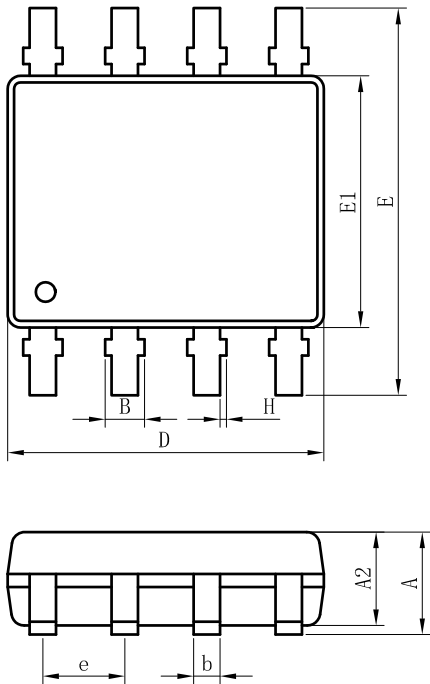


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



8. OUTLINE AND DIMENSIONS

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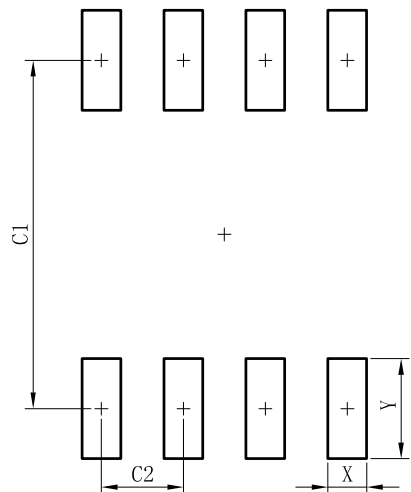


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DIM	MIN	NOR	MAX
A	-	-	1.75
A1	0.10	0.15	0.20
A2	1.35	1.45	1.55
b	0.33	0.42	0.51
c	0.15	0.22	0.29
D	4.77	4.90	5.03
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
L	0.46	0.66	0.86
L1	0.85	1.05	1.25
θ	0°	5°	8°
B	-	-	0.55
H	0	0.05	0.10
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um
4. Package Body Sizes Exclude Mold Flash, Protrusion Or Gate Burrs. Mold Flash, Protrusion Or Gate Burrs Shall Not Exceed 0.10 mm Per Side.
5. Dimension "b" Does Not Include Dambar Protrusion.

9. SOLDERING FOOTPRINT



SOP8	
DIM	(mm)
X	0.60
Y	1.55
C1	5.40
C2	1.27

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