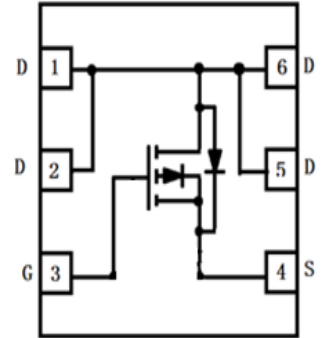
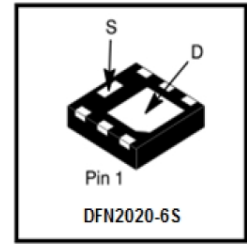


S-LP2615DT2AG

P-Channel 60-V (D-S) MOSFET



1. FEATURES

- 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.
- S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. APPLICATIONS

- Load Switches
- DC/DC Conversion
- Motor Drives

3. DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|---------------|---------|----------------|
| S-LP2615DT2AG | 5DT | 4000/Tape&Reel |

4. MAXIMUM RATINGS(Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|--|---------|-----------|------|
| Drain-Source Voltage | VDSS | -60 | V |
| Gate-to-Source Voltage | VGS | ±20 | V |
| Continuous Drain Current(Note 1) | ID | TA = 25°C | -5 |
| | | TA = 70°C | -3 |
| Pulsed Drain Current(Note 2) | IDM | -20 | A |
| Continuous Source Current (Diode Conduction)(Note 1) | IS | -5 | A |
| Power Dissipation(Note 1) | PD | TA = 25°C | 2.1 |
| | | TA = 70°C | 1.3 |
| Operating and Storage Temperature Range | TJ,Tstg | -55~+150 | °C |

5. THERMAL CHARACTERISTICS

| Parameter | Symbol | Max | Unit |
|--------------------------------------|--------|-----|------|
| Maximum Junction-to-Ambient (Note 1) | RθJA | 60 | °C/W |

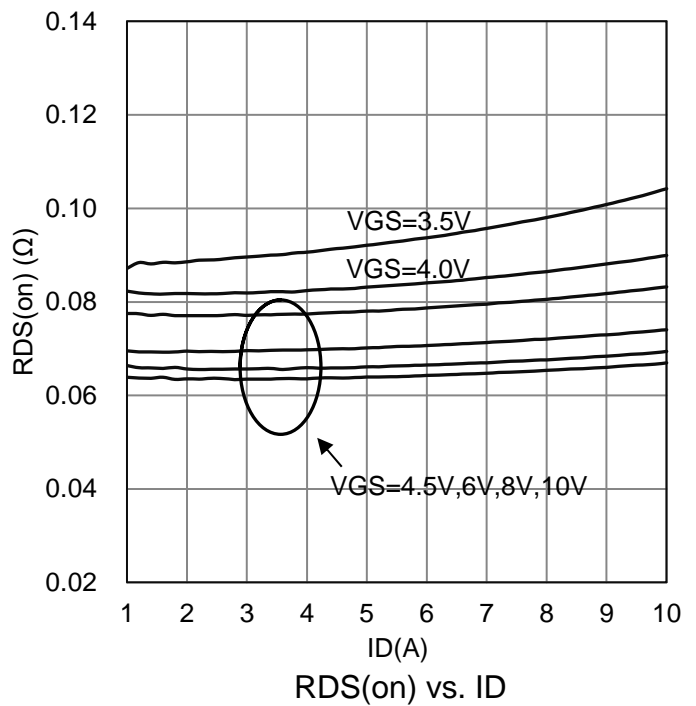
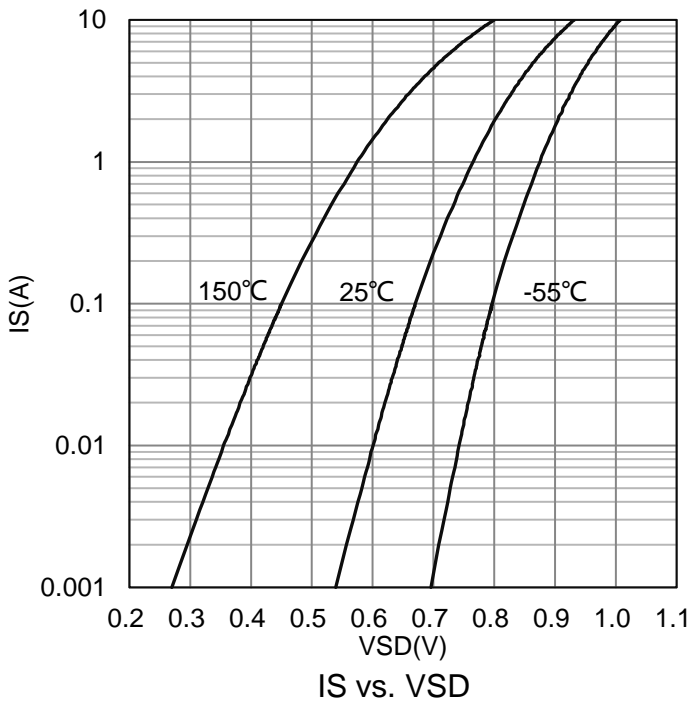
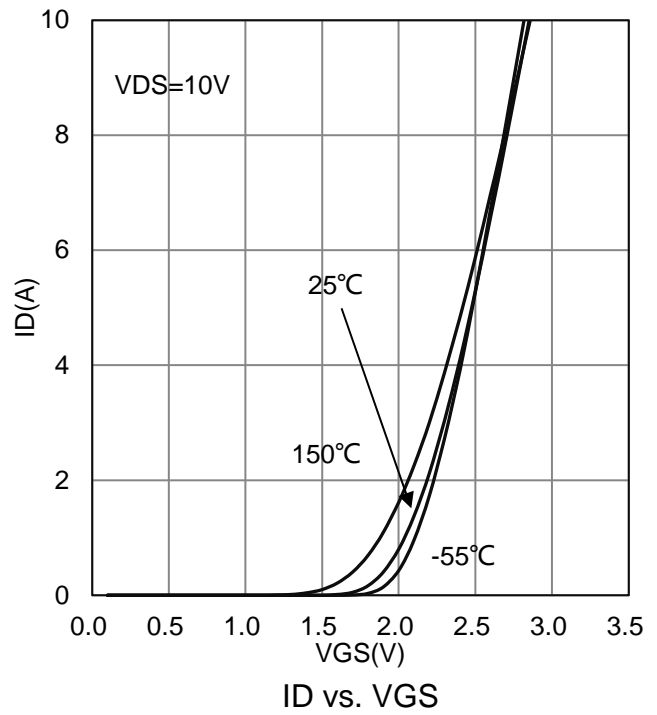
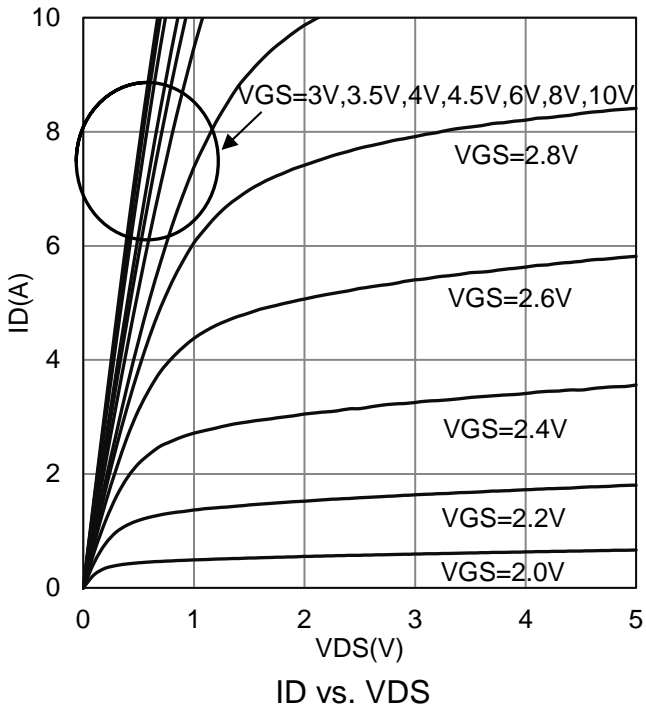
- 1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.
- 2.Pulse width limited by maximum junction temperature

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

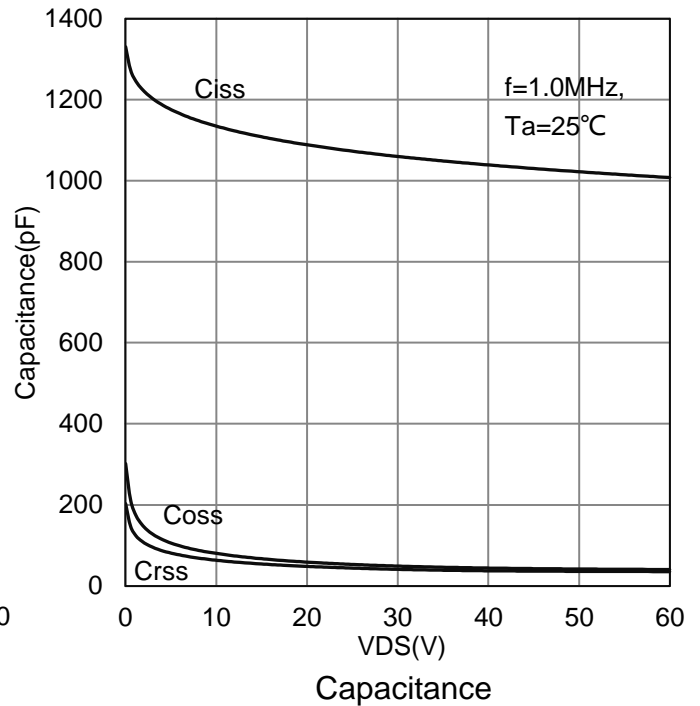
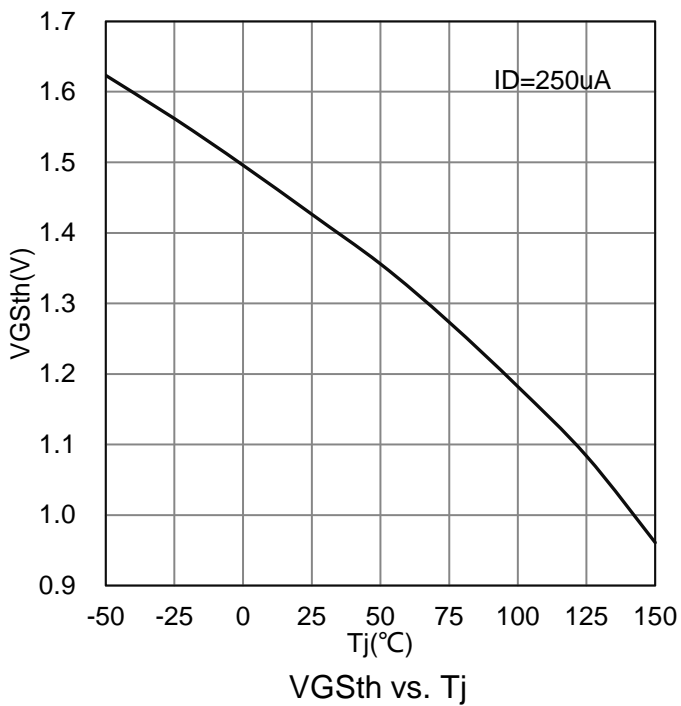
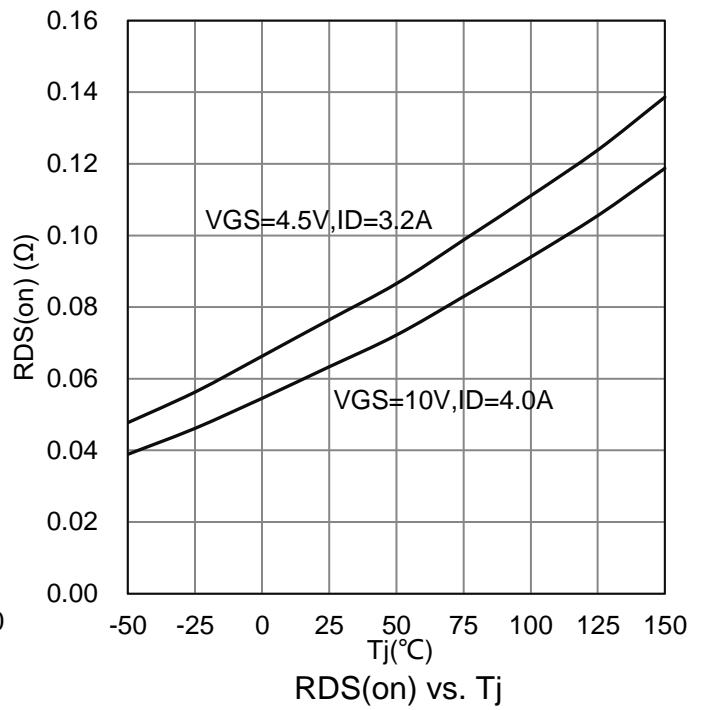
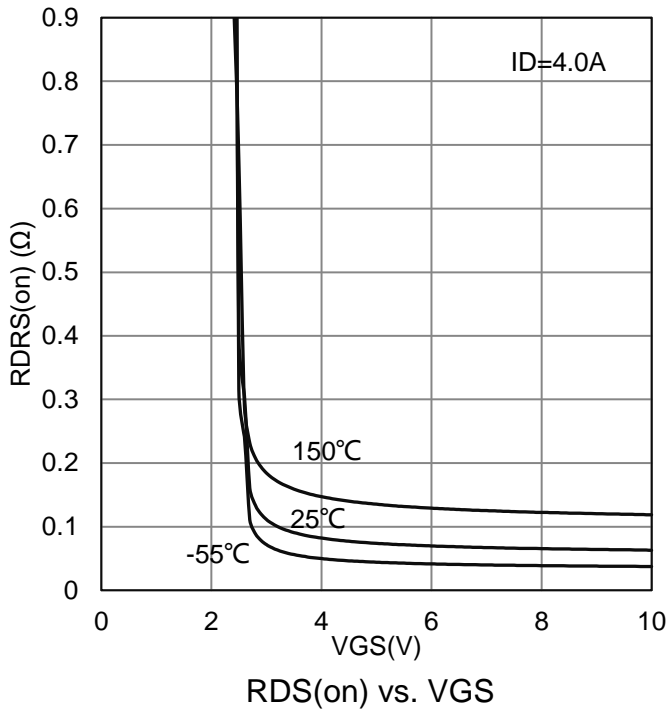
| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|---|--|---------|-------|-----------|------|
| STATIC | | | | | |
| Drain–Source Breakdown Voltage (VGS = 0, ID = -250μA) | VBRDSS | -60 | - | - | V |
| Gate-Source Threshold Voltage (VGS = VDS , ID = -250μA) | VGS(th) | -1 | - | - | V |
| Gate-to–Source Leakage Current (VDS = 0 V, VGS = ±20 V) | IGSS | - | - | ±10 | μA |
| Zero Gate Voltage Drain Current (VDS = -48 V, VGS = 0 V) (VDS = -48 V, VGS = 0 V, TJ = 55°C) | IDSS | - | - | -1 -10 | μA |
| Static Drain–Source On–State Resistance(Note 3) (VGS = -10 V, ID = -4 A) (VGS = -4.5 V, ID = -3.2 A) | RDS(on) | - | - | 82 100 | mΩ |
| Forward Diode Voltage(Note 3) (IS = -2.1 A, VGS = 0 V) | VSD | - | -0.83 | -1.2 | V |
| DYNAMIC | | | | | |
| Total Gate Charge | (VDS = -30 V, VGS = -4.5 V, ID = -4 A) | Qg | - | 8.8 | - |
| Gate-to–Source Charge | | Qgs | - | 2.2 | - |
| Gate-to–Drain Charge | | Qgd | - | 3.5 | - |
| Turn–On Delay Time | (VDS=-30 V, RL=7.5 Ω, ID=-4 A, VGEN =-10 V, RGEN= 6 Ω) | td(on) | - | 7 | - |
| Turn–On Rise Time | | tr | - | 5 | - |
| Turn–Off Delay Time | | td(off) | - | 37 | - |
| Turn–Off Fall Time | | tf | - | 14 | - |
| Input Capacitance | (VDS = -15 V, VGS = 0 V, f = 1 MHz) | Ciss | - | 1104 | - |
| Output Capacitance | | Coss | - | 66.7 | - |
| Reverse Transfer Capacitance | | Crss | - | 55.5 | - |
| Gate-Resistance (VGS = 0 V, VDS=0V, f=1MHz) | Rg | - | 6.8 | - | Ω |

3.Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2.0%.

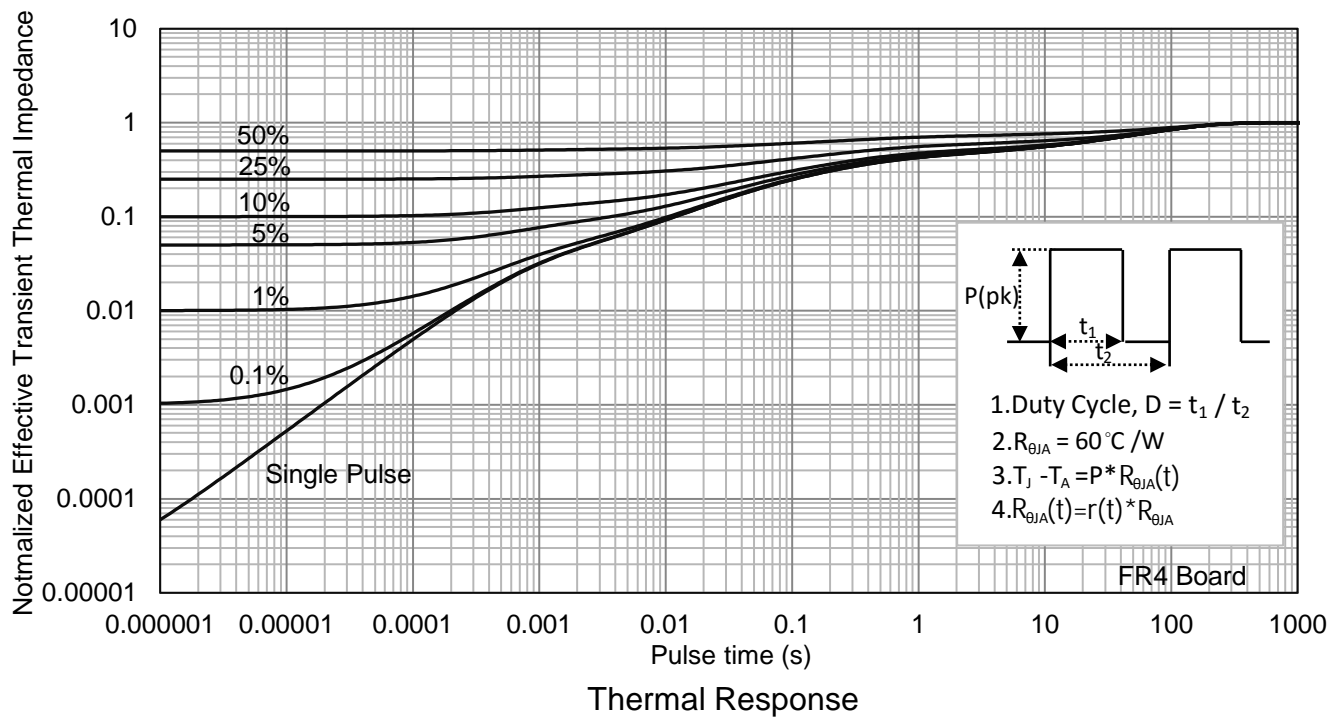
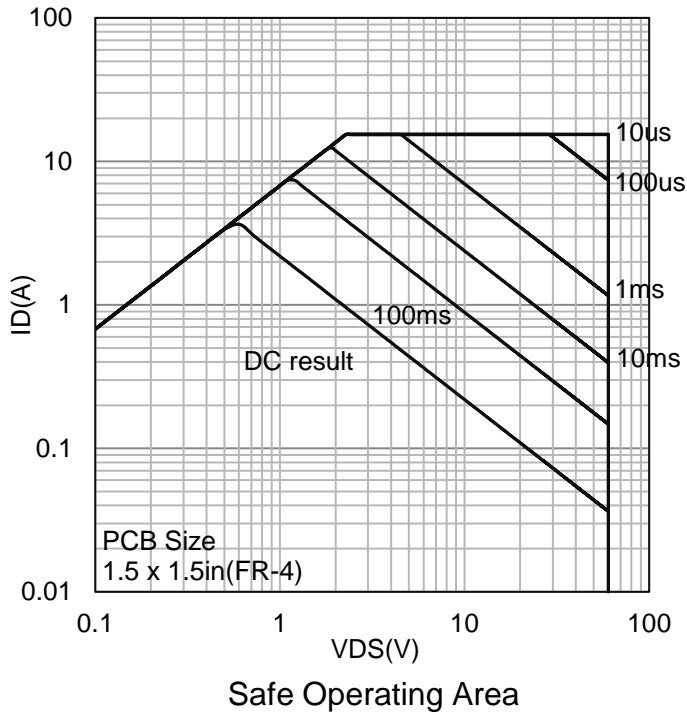
7. ELECTRICAL CHARACTERISTICS CURVES



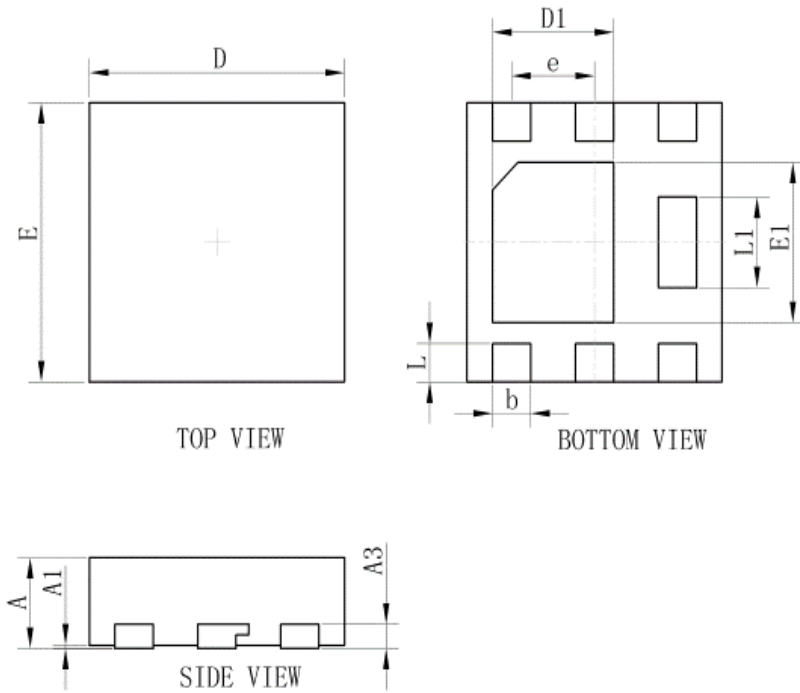
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

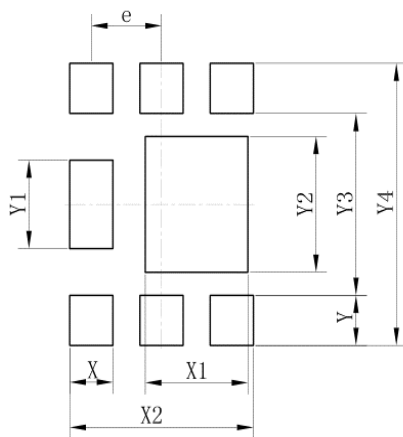


8. OUTLINE AND DIMENSIONS



| DFN2020-6S | | | |
|----------------------|----------|------|------|
| DIM | MIN | NOR | MAX |
| A | 0.60 | 0.65 | 0.70 |
| A1 | 0.01 | 0.03 | 0.05 |
| b | 0.25 | 0.30 | 0.35 |
| D | 1.95 | 2.00 | 2.05 |
| E | 1.95 | 2.00 | 2.05 |
| e | 0.65TYP. | | |
| L | 0.23 | 0.28 | 0.33 |
| L1 | 0.60 | 0.65 | 0.70 |
| D1 | 0.90 | 0.95 | 1.00 |
| E1 | 1.10 | 1.15 | 1.20 |
| A3 | 0.152REF | | |
| All Dimensions in mm | | | |

9. SOLDERING FOOTPRINT



| DFN2020-6S | |
|------------|------|
| Dim | (mm) |
| X | 0.40 |
| X1 | 0.95 |
| X2 | 1.70 |
| e | 0.65 |
| Y | 0.43 |
| Y1 | 0.75 |
| Y2 | 1.15 |
| Y3 | 1.54 |
| Y4 | 2.39 |

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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