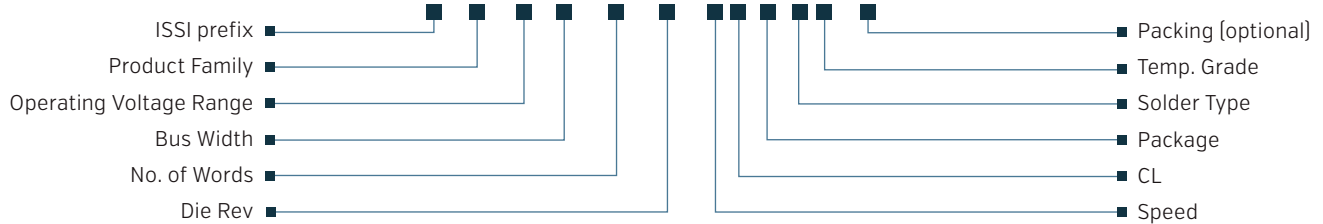




IS 43 DR 8 1280 C - 25D B L I - TR



■ **SDRAM Product Family**

- 41 = Asynchronous
- 42 = SDR Commercial/Industrial grade
- 43 = [LP]DDR/DDR2/DDR3/DDR4  
Commercial/Industrial grade
- 45 = SDR Automotive grade
- 46 = [LP]DDR/DDR2/DDR3/DDR4  
Automotive grade

■ **Operating Voltage Range**

**Asynchronous: Fast Page and EDO**

- C = 5V
- LV = 3.3V

**Synchronous:**

**High Speed**

- S = 3.3V SDR
- VS = 1.8V SDR
- R = 2.5V DDR or 2.5V SDR
- DR = DDR2
- TR = DDR3
- QR = DDR4

**Low Power**

- SM/RM/VM = 3.3V/2.5V/1.8V mobile SDR
- LR = 1.8V mobile DDR [LPDDR]
- LD = LPDDR2
- LQ = LPDDR4

■ **Bus Width**

- 8 = x8
- 16 = x16
- 32 = x32

■ **No. of Words**

- 100 = 1M
- 200 = 2M
- ...
- 128 = 128M
- 256 = 256M
- 512 = 512M

■ **Generation [Rev]**

- A-Z

■ **Speed**

- 7 = up to 143Mhz
- 6 = up to 166Mhz
- 75E = up to 133Mhz @ CL2
- 5 = up to 200Mhz
- 37 = up to 266Mhz
- 3 = up to 333Mhz
- 25 = up to 400Mhz
- 187 or -18 = up to 533Mhz [1066 Data Rate]
- 15 = up to 667 Mhz [1333 Data Rate]
- 125 = up to 800Mhz [1600 Data Rate]
- 107 = up to 933Mhz [1866 Data Rate]
- 093 = up to 1066Mhz [2133 Data Rate]
- 083 = up to 1200Mhz [2400 Data Rate]

■ **CL [CAS Latency]**

- B = 3, C = 4, D = 5, E = 6,
  - F = 7, G = 8, H = 9, J = 10,
  - K = 11, L = 12, M = 13, N = 14,
  - P = 15, R = 16, T = 17, U = 18
- [Blank for some products, whereas only specific speed and CL combinations exist for others.]

■ **Solder Type**

- [Blank] = Sn/Pb
- L = 100% matte Sn for non-BGA or SnAgCu for BGA

■ **Temp. Grade**

- Blank = Commercial Grade [0°C to +70°C]
  - I = Industrial Grade [-40°C to +85°C]
  - A1 = Automotive Grade [-40°C to +85°C]
  - A2 = Automotive Grade [-40°C to +105°C]
  - A25 = Automotive Grade [-40°C to +115°C]
  - A3 = Automotive Grade [-40°C to +125°C]
- [Ambient or case temperature limits shown for most products. Refer to specs.]

■ **Package Type**

- B = BGA
- CT = Copper TSOP
- T = TSOP
- BP = PoP BGA
- K = SOJ