

Intersil Legacy Nomenclature Guide

Contents

ISL Types	3
EL Types	4
X Types	5
System Management Products (SMP)	5
Real Time Clocks (RTC)	5
Voltage References (VREFs)	6
Digitally Controlled Potentiometers (DCPs)	6
Digitally Controlled Capacitors (DCCs)	7
Bias and Control for Laser Diode with Integrated DCP	7
Bias and Control for Laser Diode	7
General Purpose Sensor Conditioners with Look-Up Table Memory	8
Parallel E ² PROM	8
Serial E ² PROM	8
ZL Types	9
ZL Power Modules	9
ZL Evaluation Boards	9
KAD Types	10
QLx Types	10
Wired Signal Integrity Parts	10
Active Cables	11
QL Evaluation Boards	11
QHx Types	11
Wireless Noise Cancellation Parts	11
D2 Types	12
RKP Types	12
TW Types	13
5962 SMD/DLA - QML Types	14
80C, 82CXXX Types	14
ACS, ACTS, HCS, HCTS Radiation Hardened Types	15
AD Types	15
CA Types	15
CD22XXX Types	16
CD4000 Radiation Hardened Types	16
CDP Types	16
CDP68HC68 Types	17
CDP65C51 Types	17
CD74HC Types	17
DG Types	17
HX Types	18

HX, HXX Types	18
HCS, HCTS, ACS, ACTS, Radiation Hardened Types	19
HIN Types	19
HIP Types	19
HMP Types	20
HMU/HMA Types	20
HS/IS Radiation Hardened Types	20
HSP Types	21
ICL, ICM Types	21
ICL Types (Interface Circuits)	22
JM JAN-QML Types	22

ISL Types

PREFIX	ISL	X	XXXX	X	I	XX	X	XXX	Z	-T	SUFFIX/ POST PROCESSING/ SPECIAL SERVICES
FAMILY DESIGNATOR									PB-FREE OPTION Z: ROHS and IEC61249-2-21 Halogen Free		
1: DSL, RTC, Clocks, ATE, Energy LED Lighting									SPECIAL SELECTIONS Optional Characters to Denote Operating Conditions or Package Options: 18: 1.8V 33: 3.3V EP: Enhanced Product (DLA Vendor Item Drawing) EPZ: Enhanced Product w/100% Matte Tin Lead Finish A, B etc.: Firmware revision. This will not appear on part marking		-T: Tape and Reel -T1: Tape and Reel -T2: Tape and Reel w/Vacuum Pack -T7: 7" Reel -TS: 7" Reel, 100pc. -T7A: 7" Reel, 250pc. -T13: 13" Reel -T5: 500pc Tape and Reel -TK: 1,000pc Tape and Reel -T5K: 5,000pc Tape and Reel -EV: Evaluation Board -EVZ: Evaluation Board ROHS Compliant -DM: Demo Board -DMZ: Demo Board ROHS Compliant -RF: Ref Design Eval Board -RFZ: Ref Design Eval Board ROHS Compliant -EC: Enhanced Commercial (Enhanced EOL, MIL-PRF-38535 Change Notice, Traceable to Wafer Lot)
2: Reference, DCPs, Buffers, Sensors, Precision Op Amp, Precision ADC & DAC									OPTIONAL ELECTRICAL GRADE To Denote Speed or Precision Grading as Defined in Datasheet		
3: Interface, Data Communication									PACKAGE DESIGNATOR		
4: Analog Component Solutions									A: Shrink Small Outline Plastic (SSOP/QSOP)		
5: High Speed Amps, Switch/MUX, ADCs, DACs, Optical, Video, Telecom VoIP, DSP Function Specific									AR: Quad Flat No-Lead (Punch QFN with Wettable Flank)		
6: Desktop Power									B: Small Outline Plastic (SOIC)		
7: Space, Auto									BE: Exposed Pad SOIC (EPSOIC)		
8: Analog Switches, General Purpose Power									C: Available		
9: Notebook, Handheld									D: Ceramic Dual-In-Line Metal Seal (SBDIP)		
A: High Speed ADCs									E: Small Outline Transistor Plastic (SC-70)		
									F: Ceramic Flatpack		
PART NUMBER									FE: Ceramic Flatpack w/Heatsink		
3 to 5 Digits									G: Single In-line Plastic (SIP) TO-220		
									GS: Single In-line Plastic, Surface Mount (SIP) TO-263		
OPTION									H: Small Outline Transistor Plastic (SOT-23)		
E: 15kV ESD Protected DCP Resistance Options									HT: Thin Small Outline Transistor Plastic (TSOT)		
W: 10k									I: Chip Scale Package (CSP)		
U: 50k									J: Ceramic Dual-In-Line Frit Seal (CERDIP)		
T: 100k									K: Ball Grid Array (FBGA/PBGA/LGA)		
									KE: Heat Sink Ball Grid Array (HBGA)		
TEMPERATURE RANGE									KV: Very Thin Fine Pitch BGA (VFBGA)		
C: 0°C to +70°C (Commercial)									L: Ceramic Leadless Chip Carrier (CLCC, SMD 0.5)		
D: 0°C to +85°C									M: Plastic Leaded Chip Carrier (PLCC)		
H: -10°C to +100°C (Hi-Temp Comm.)									N: Thin Plastic Quad Flatpack (TQFP/LQFP)		
E: -20°C to +85°C (Extended Comm.)									NE: Thin Plastic Quad Flatpack (TQFP/LQFP w/Exposed Pad)		
I: -40°C to +85°C (Industrial)									O: Do Not Use		
A: -40°C to +105°C (Automotive)									P: Dual-In-Line Plastic (PDIP)		
F: -40°C to +125°C (Full-range Industrial)									Q: Metric Plastic Quad Flatpack (MQFP/PQFP)		
P: -40°C to +130°C (Power Supply)									R: Quad/Dual Flat No Lead (QFN/DFN)/HDA (High Density Array)		
M: -55°C to +125°C (Military)									RA: Array Flat No Lead (AFN)		
RHV: QML Class V (Radiation Hardened)									RO: Optical Quad/Dual Flat No Lead (OQFN/ODFN)		
RHQ: QML Class Q (Radiation Hardened)									ROM: Optical Quad/Dual Flat No Lead Module		
RHT: QML Class T (Radiation Hardened)									RT: Thin Quad/Dual Flat No Lead (TQFN/TDFN)		
EHV: QML Class V (Radiation Hardened)									RU: Ultra Thin Quad/Dual Flat No Lead (UTQFN/UTDFN/ePad UTQFN)		
EHQ: QML Class Q (Radiation Hardened)									RS: Top Exposed Pad QFN (TEPQFN)		
EHT: QML Class T (Radiation Hardened)									RX: Extreme Thin Flat No Lead (X2DFN/X2QFN)		
									S: Header (TO-257)		
									T: Metal Can (TO-39)		
									U: Mini Small Outline Package (MSOP)		
									UE: Thermally Enhanced Mini Small Outline Package (HMSOP)		
									UO: Optical Mini Small Outline Package (OSOP)		
									V: THIN Shrink Small Outline Plastic (TSSOP)		
									VE: Thermally Enhanced Thin Shrink Small Outline Plastic (HTSSOP/EPTSSOP)		
									W: Wafer Sale		
									WMB: Wafer Sale With Solderable Metal Backing Layer		
									XM: Die Sale, Military Visual (Condition B)		
									XC: Die Sale, Commercial Visual		
									XB: Die Sale, Bumped Die (FCP)		
									Y: Available		
									Z: Do Not Use		

EL Types

EL **1503** **A** **I** **R** **Z** **-T**

PREFIX ——— |

PART NUMBER ——— |

OPTIONAL SUFFIX OR PART VARIATION ——— |

TEMPERATURE RANGE ——— |

PACKAGE FAMILY ——— |

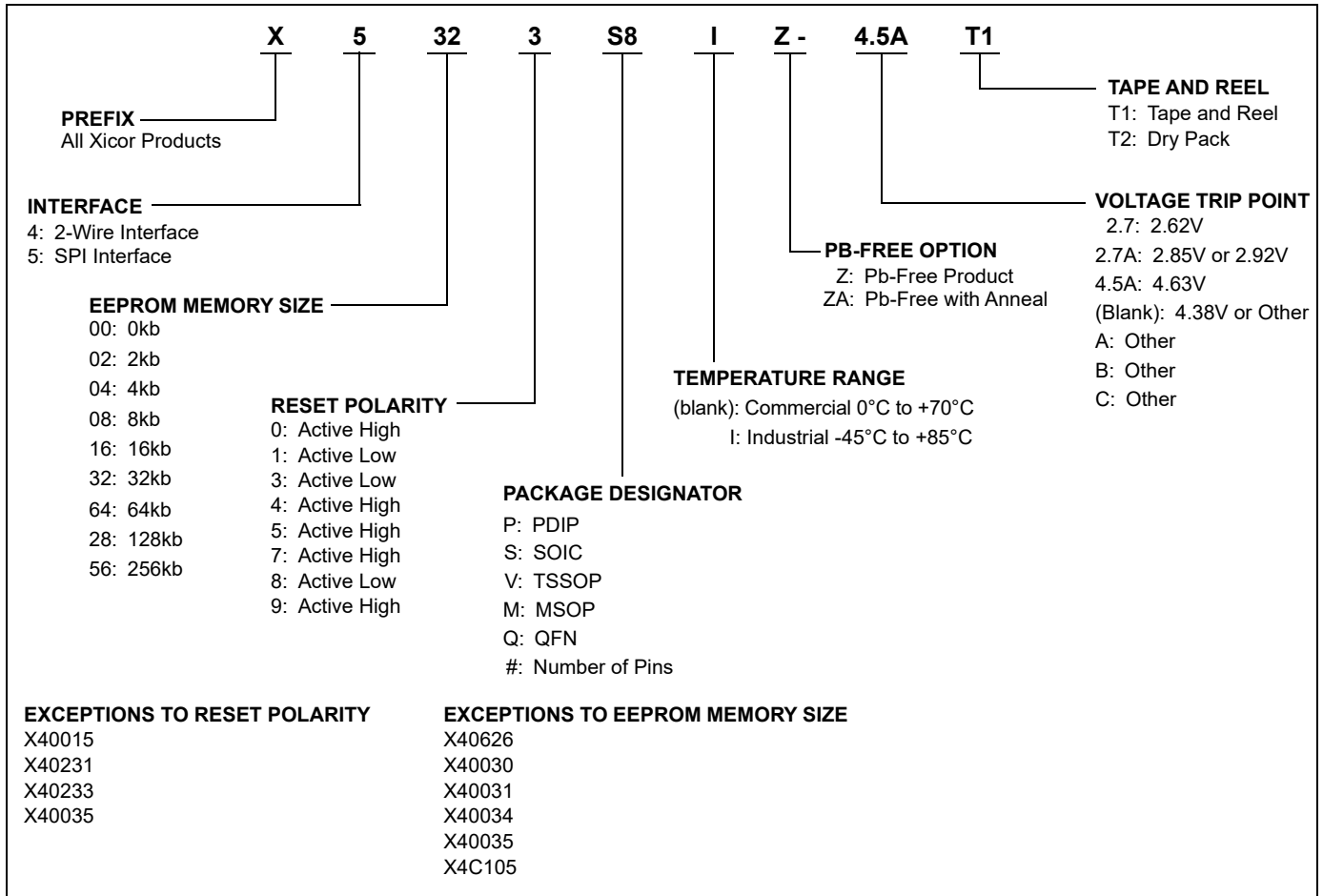
PB-FREE OPTION
Z: Pb-Free Product

SUFFIX/POST PROCESSING/SPECIAL SERVICES
-T: Tape and Reel
-T7: 7" Reel
-T7A: 7" Reel (250 pcs)
-T13: 13" Reel

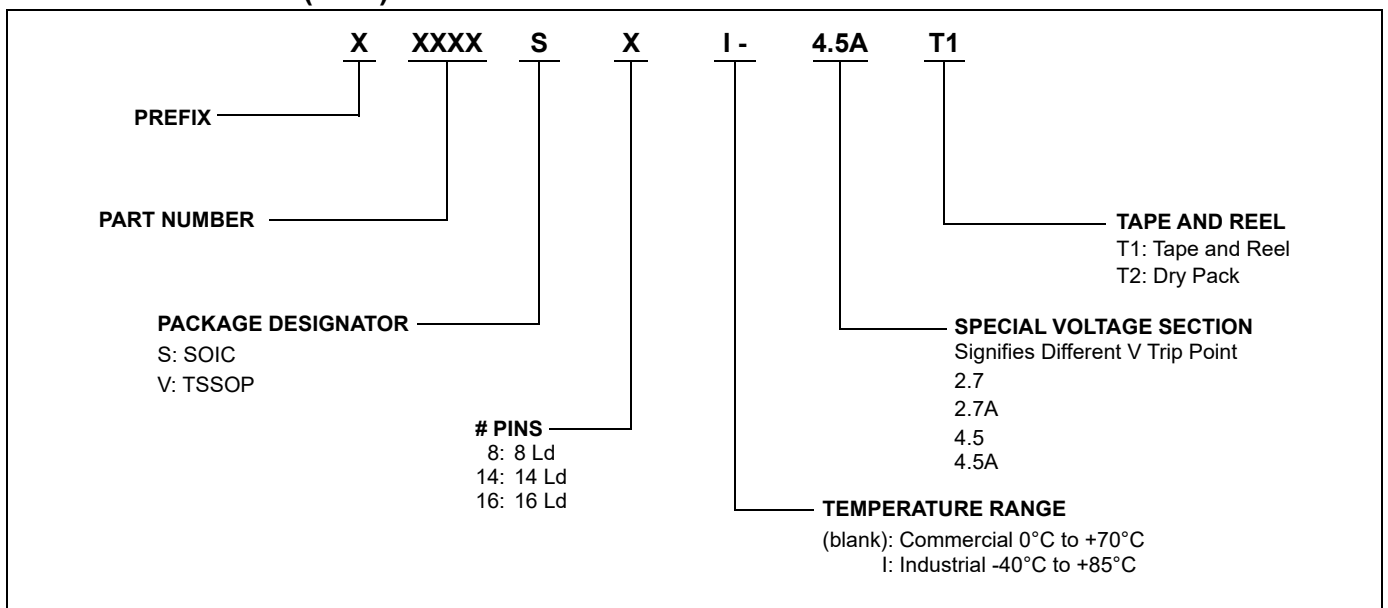
PACKAGE TYPE	PACKAGE DESIGNATOR
Bare Die	D
CerDip	J
QFN/DFN (Saw Singulate)	L
SO (0.300") and HSOP	M
PDIP	N
TSSOP (4.4 mm)	R
HTSSOP (4.4 mm)	RE
SO (0.150")	S
TO-220	T
QSOP	U
SOT-23	W
MSOP	Y
HMSOP	YE
TSOT	WT
SC-70	C

X Types

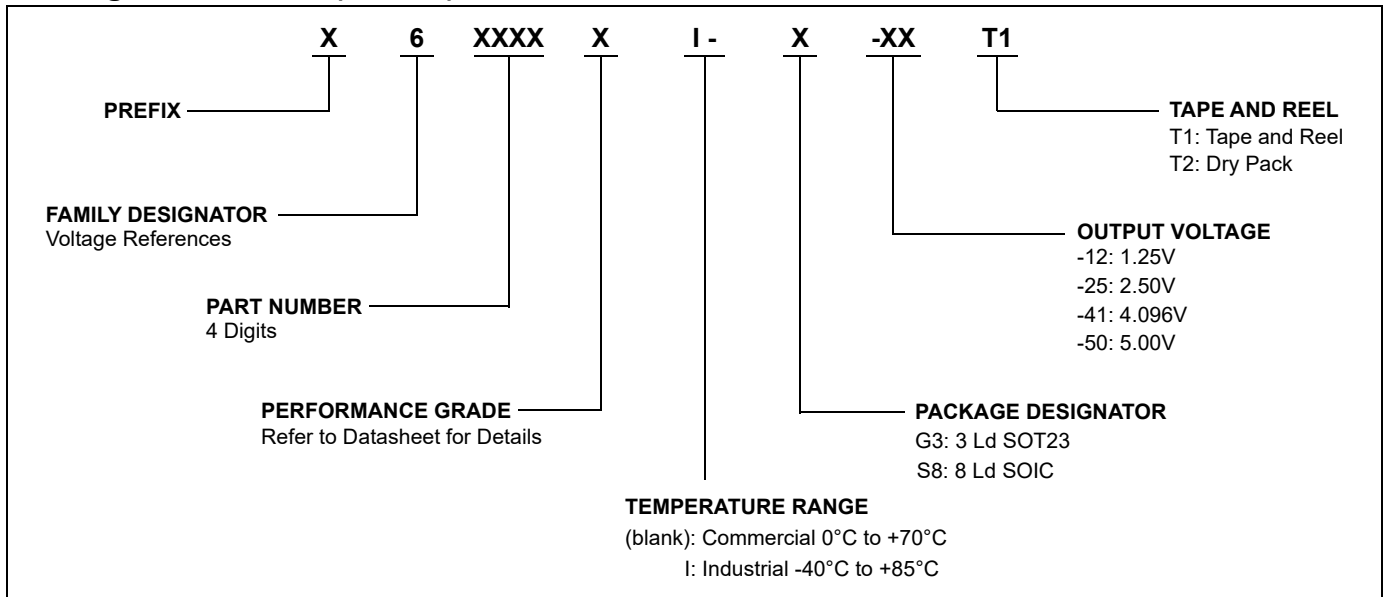
System Management Products (SMP)



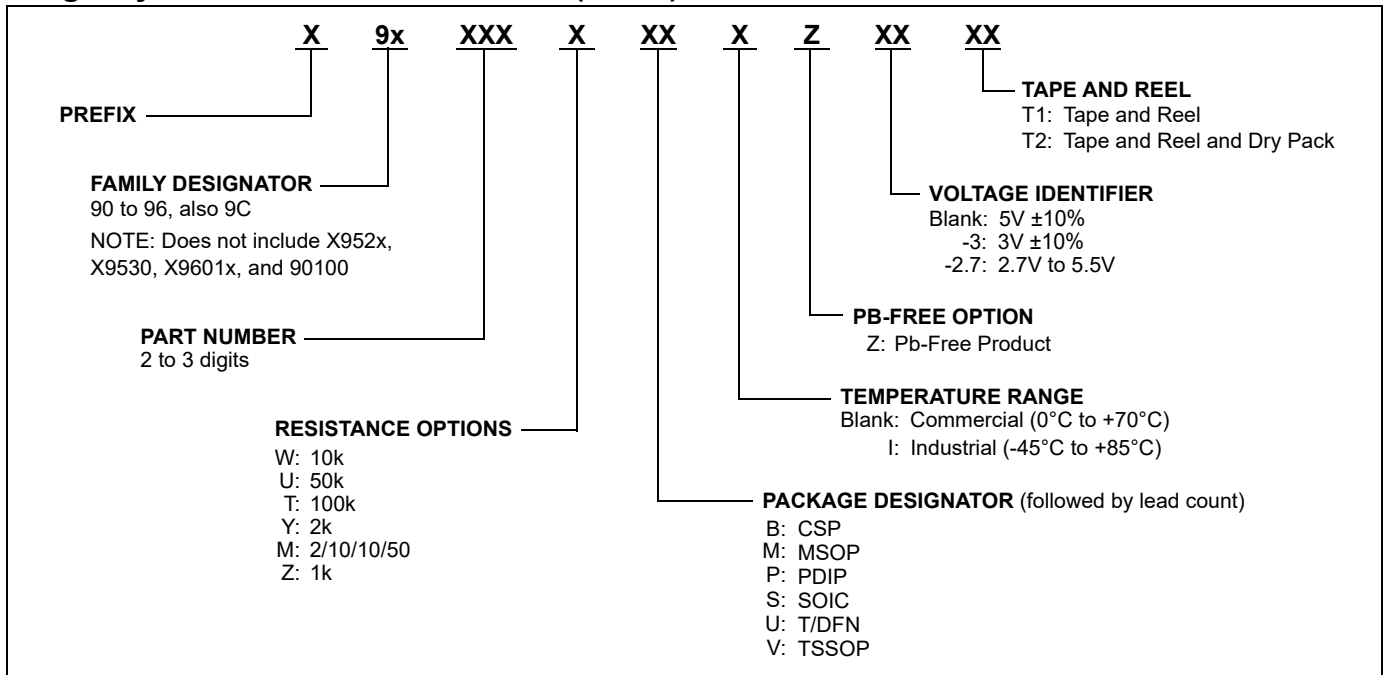
Real Time Clocks (RTC)



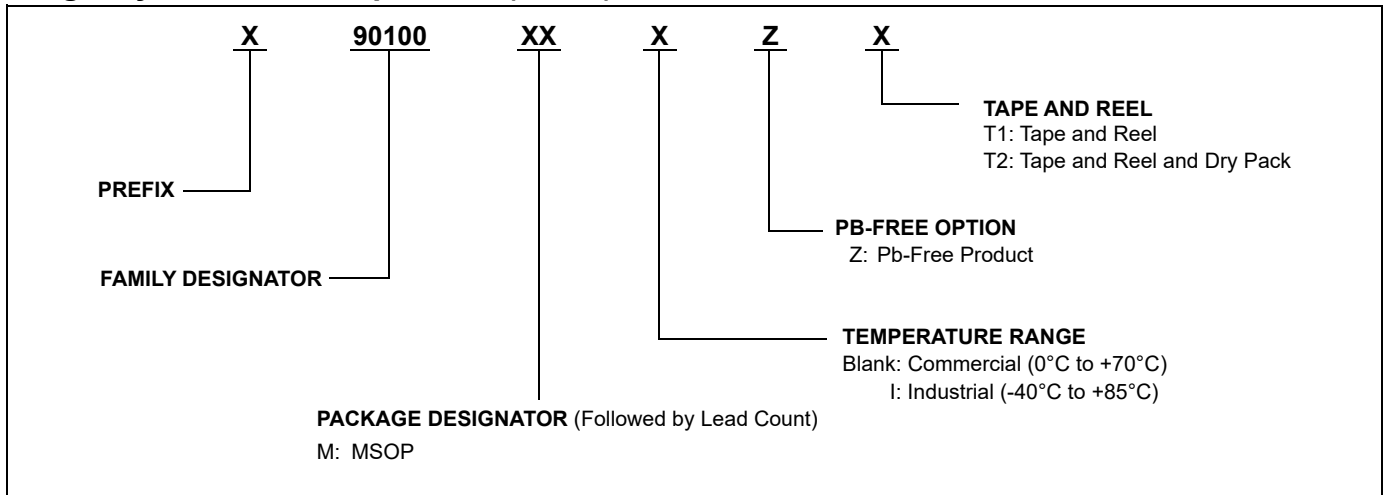
Voltage References (VREFs)



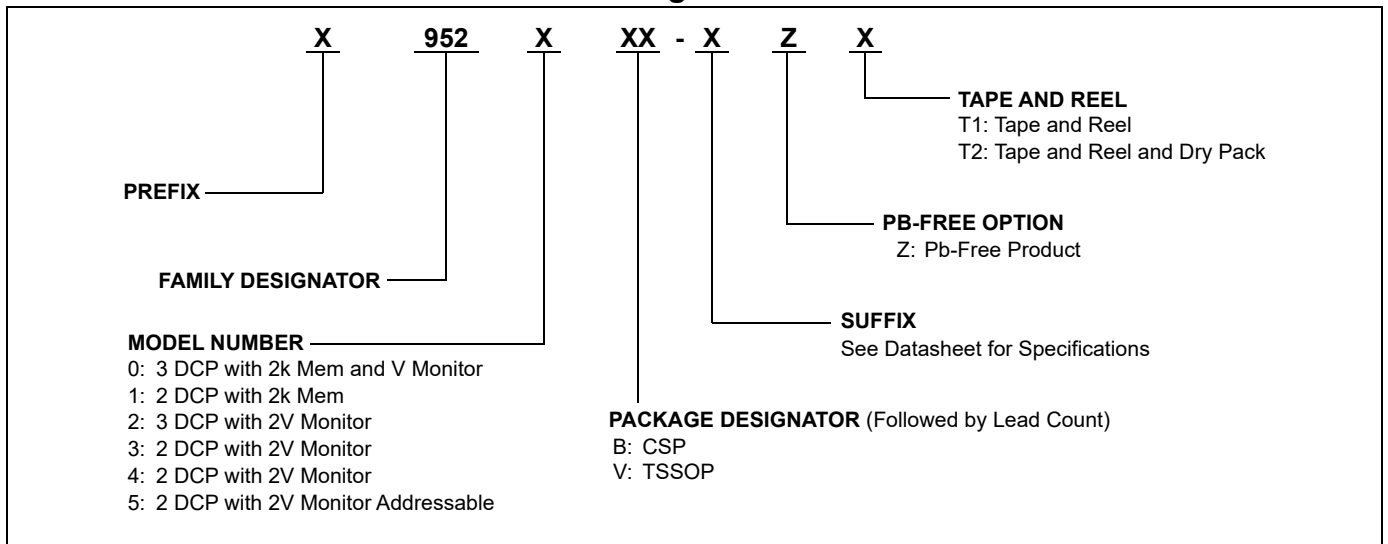
Digitally Controlled Potentiometers (DCPs)



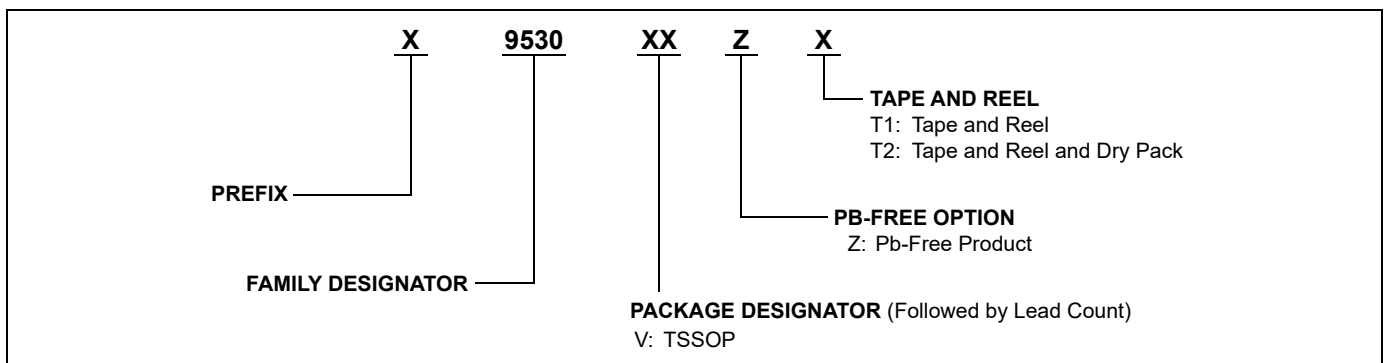
Digitally Controlled Capacitors (DCCs)



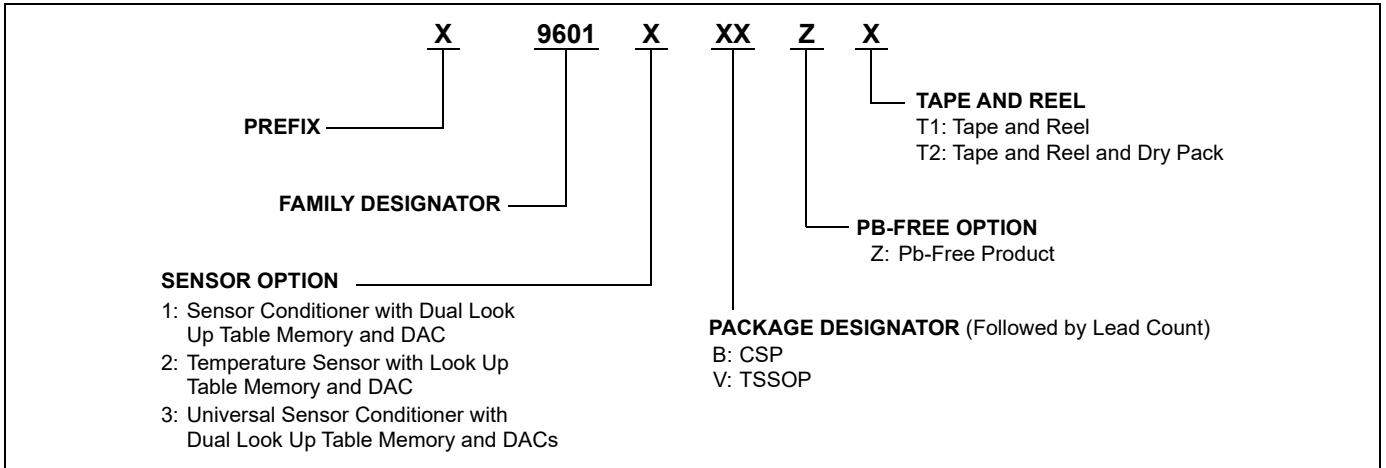
Bias and Control for Laser Diode with Integrated DCP



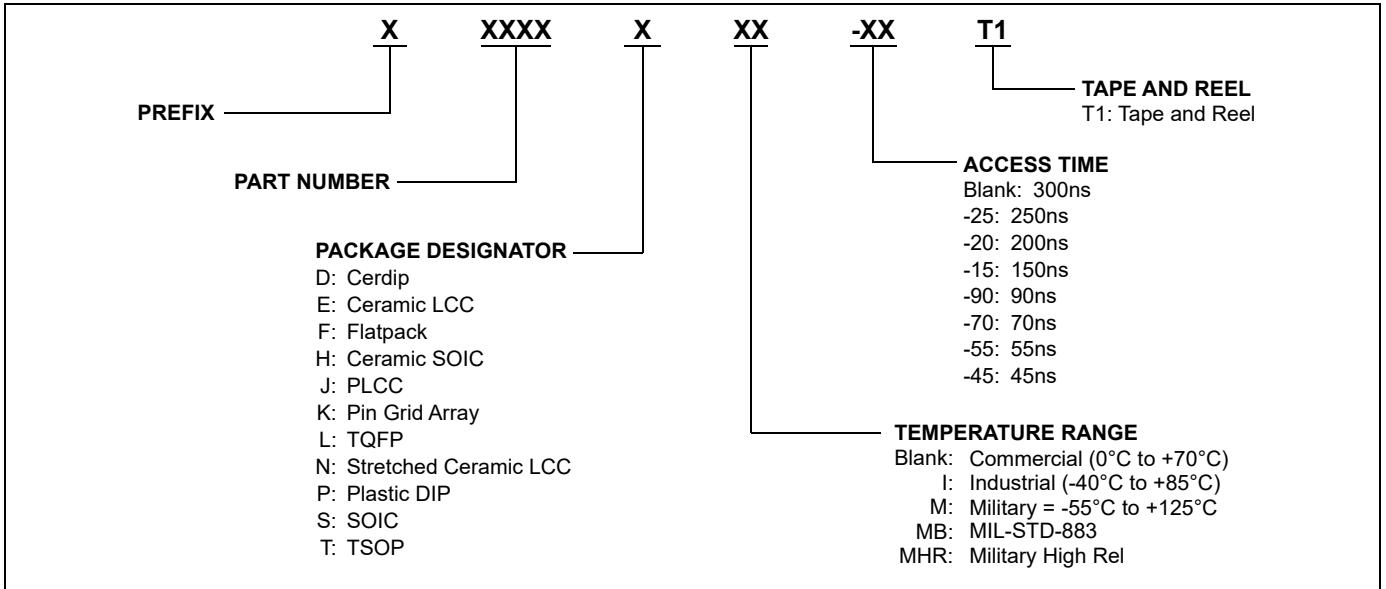
Bias and Control for Laser Diode



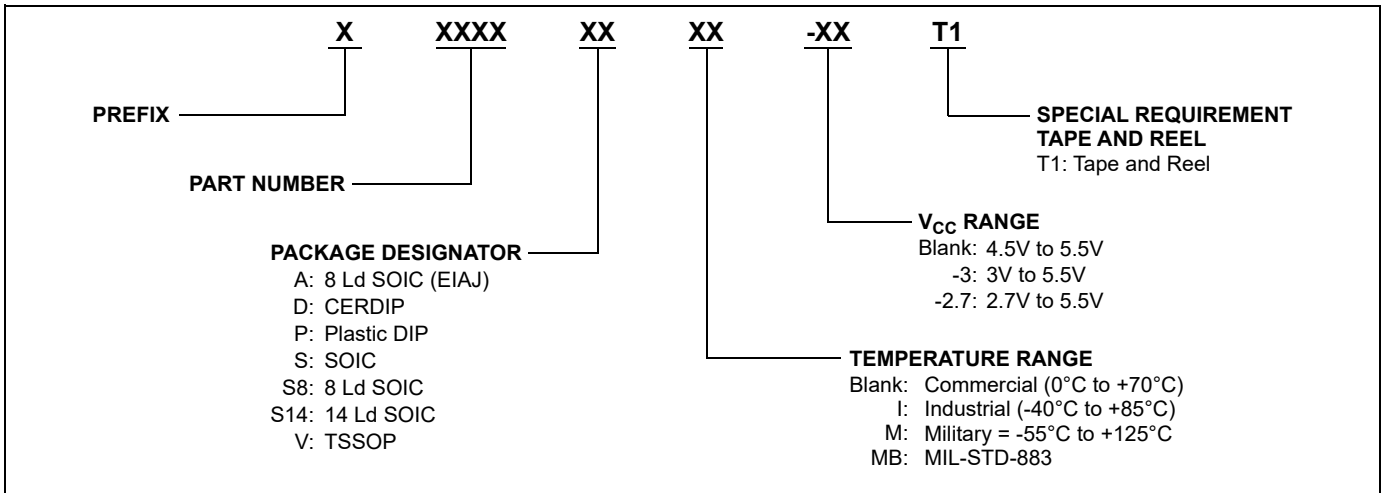
General Purpose Sensor Conditioners with Look-Up Table Memory



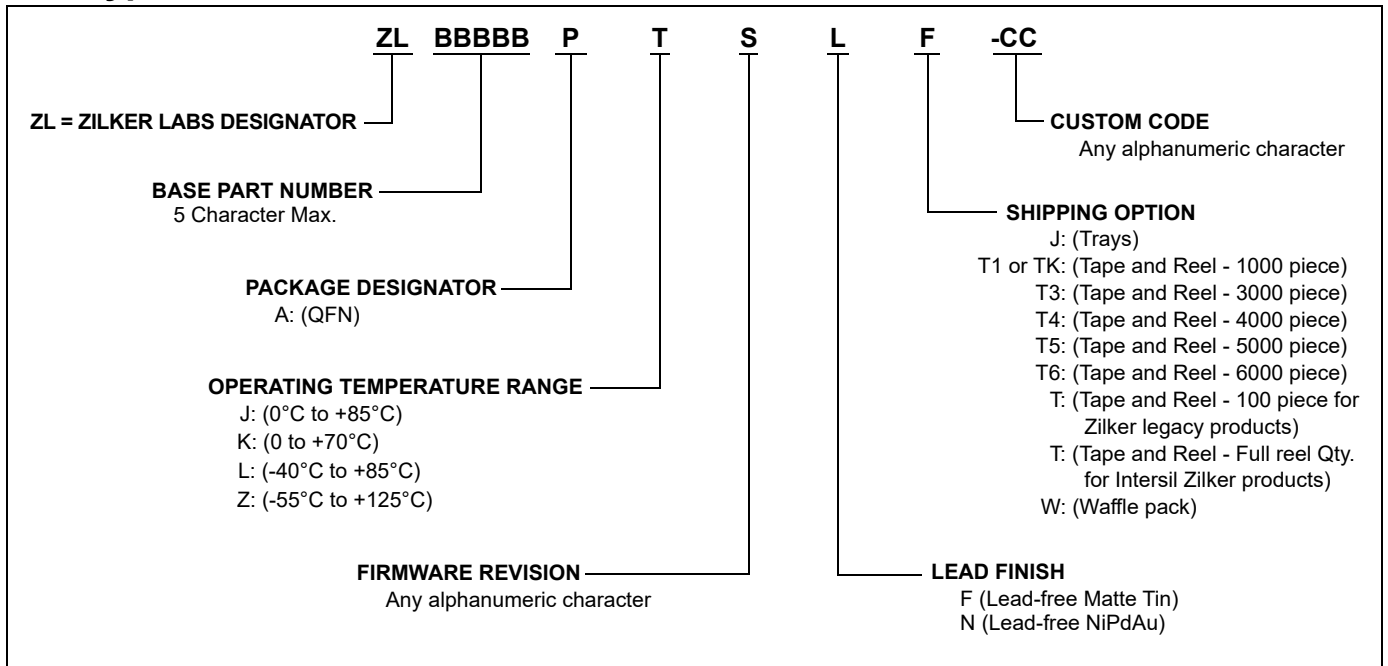
Parallel E²PROM



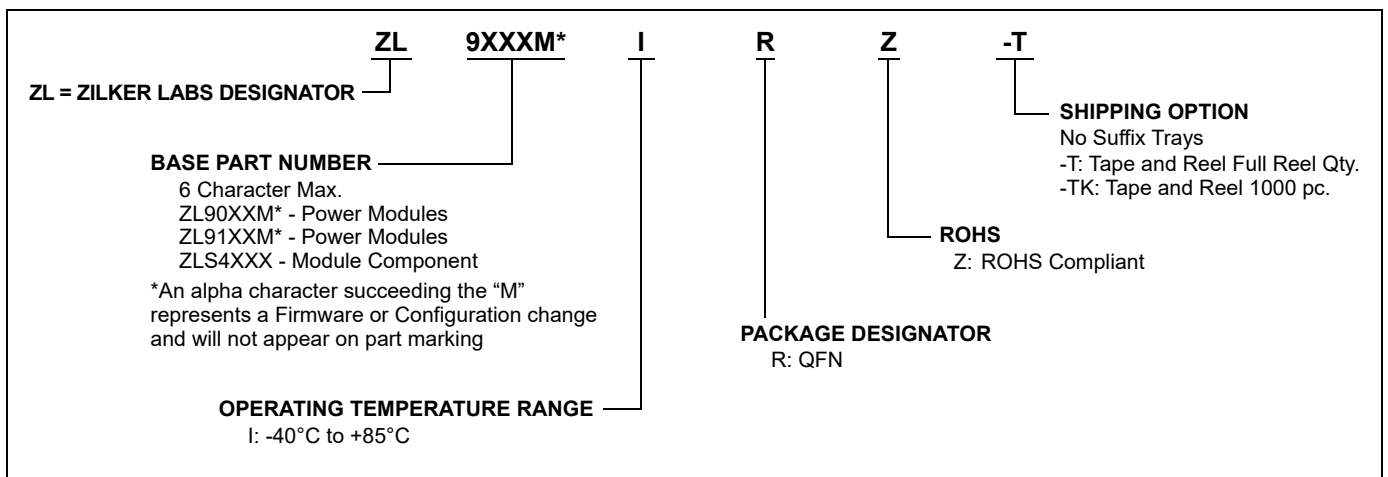
Serial E²PROM



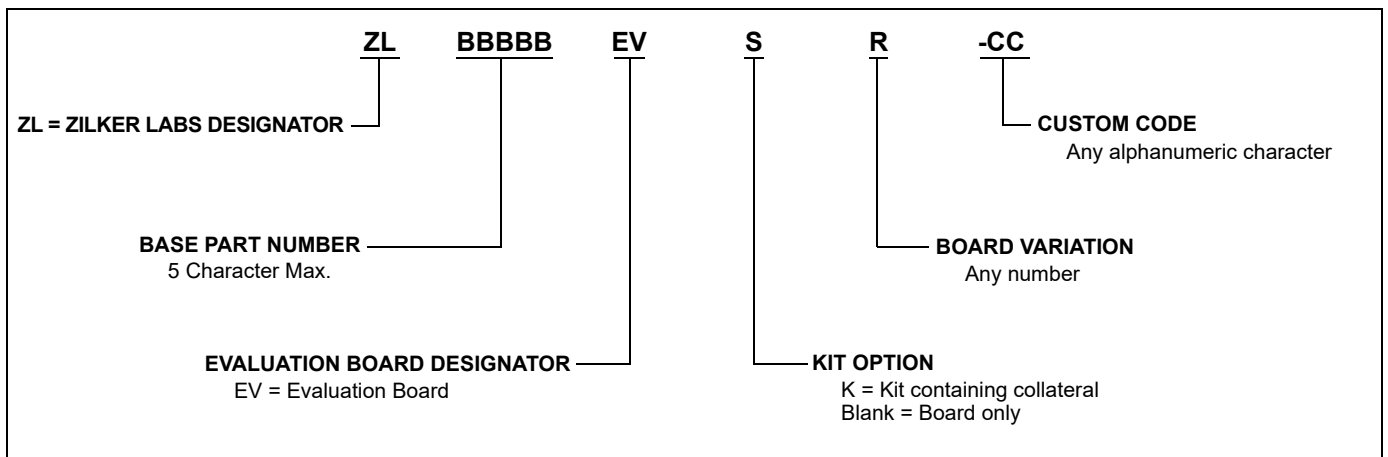
ZL Types



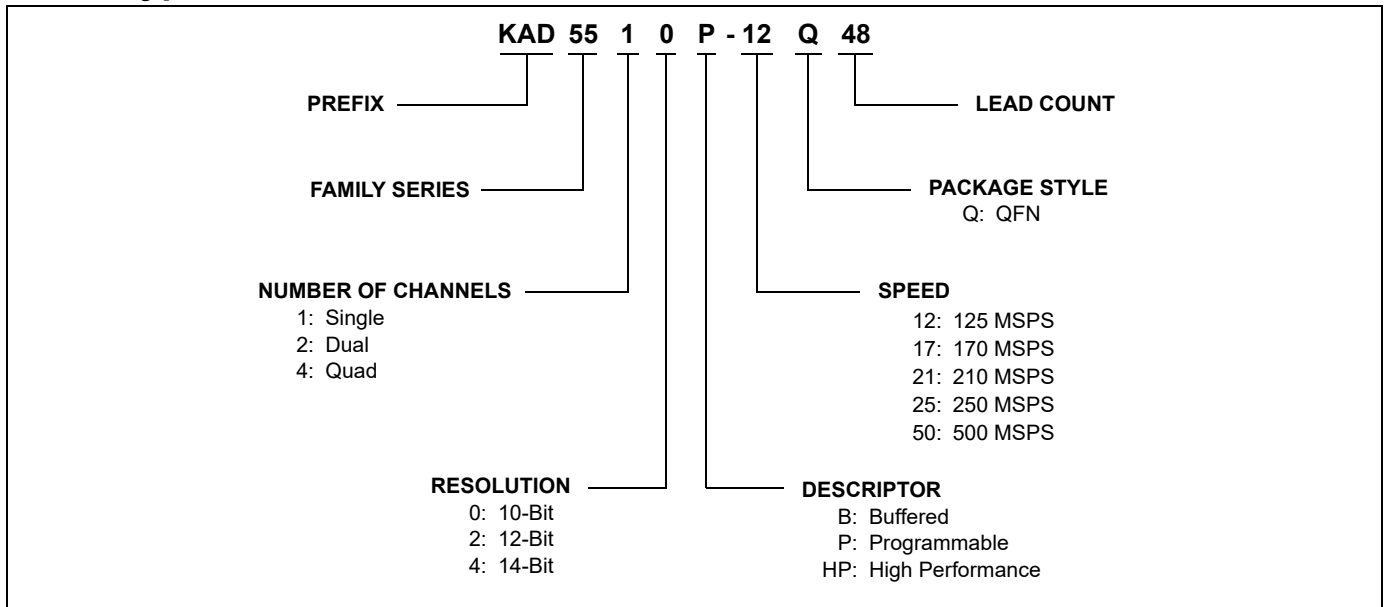
ZL Power Modules



ZL Evaluation Boards

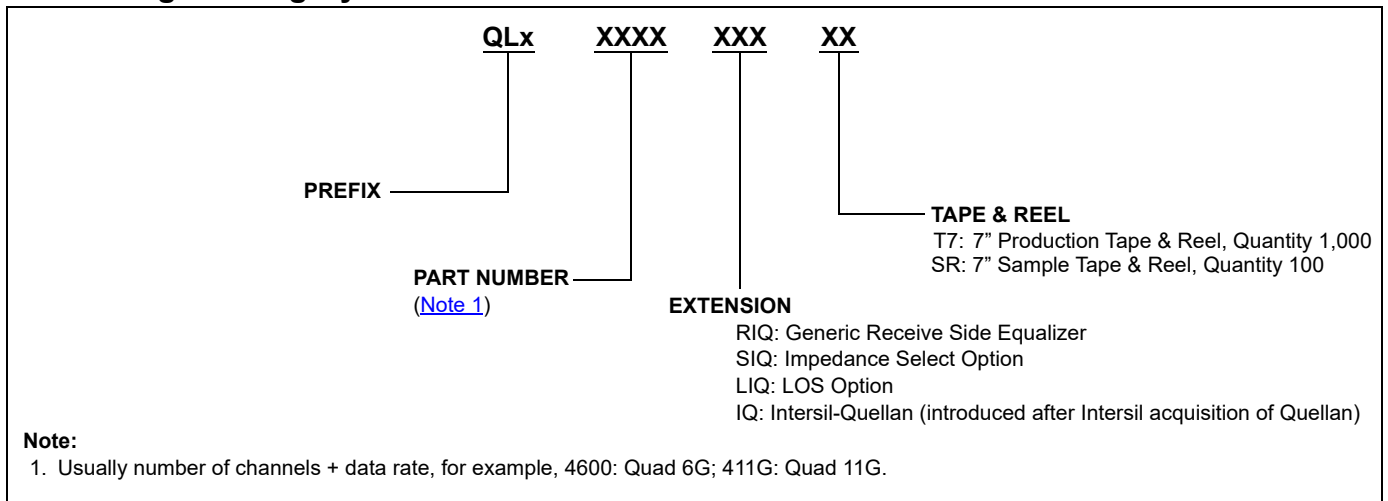


KAD Types

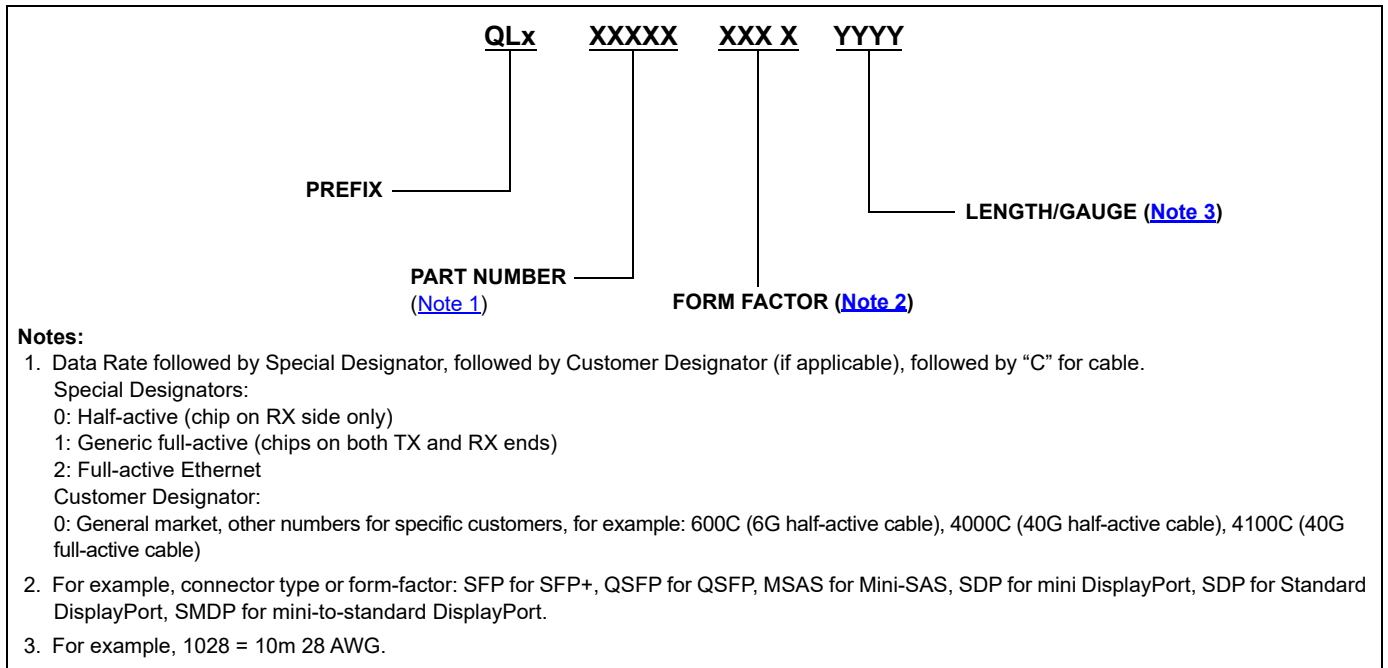


QLx Types

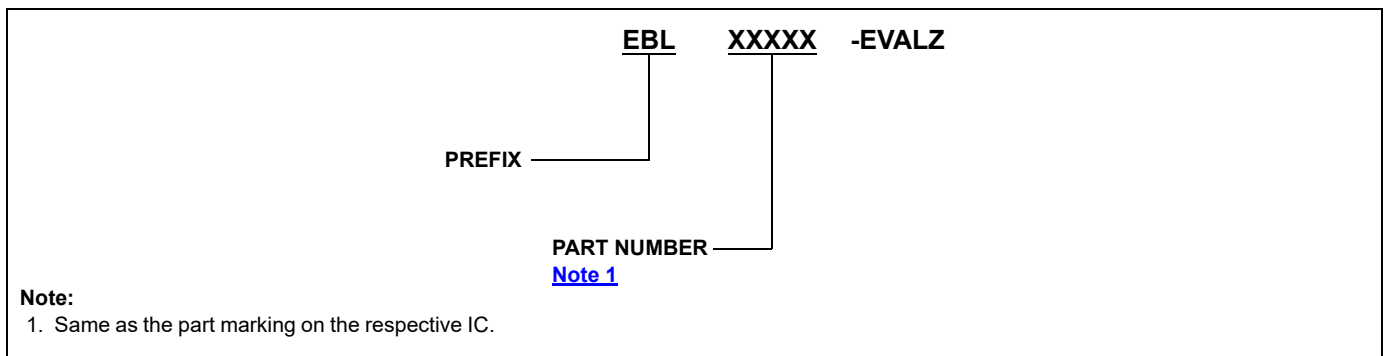
Wired Signal Integrity Parts



Active Cables

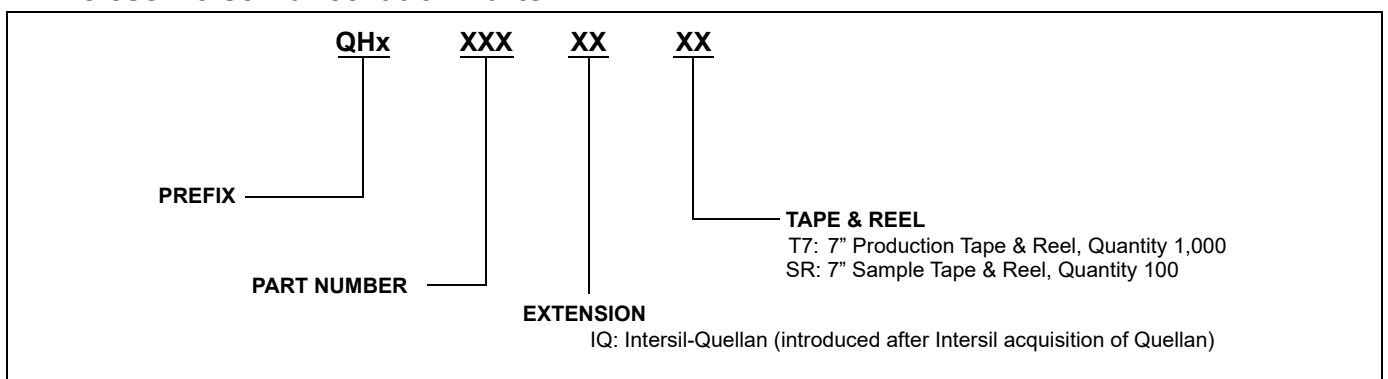


QL Evaluation Boards

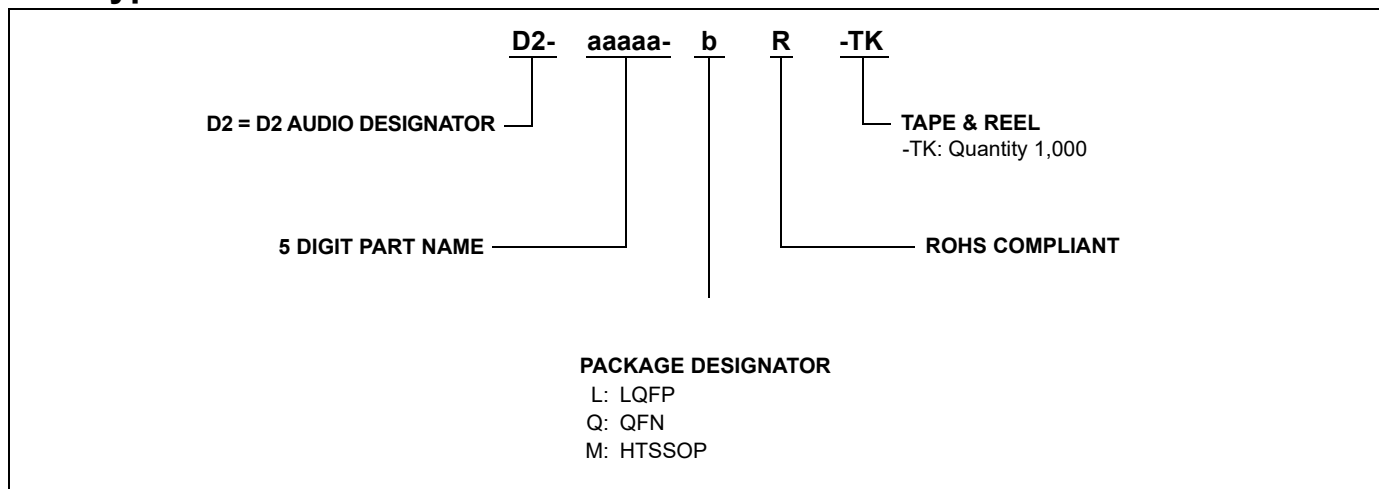


QHx Types

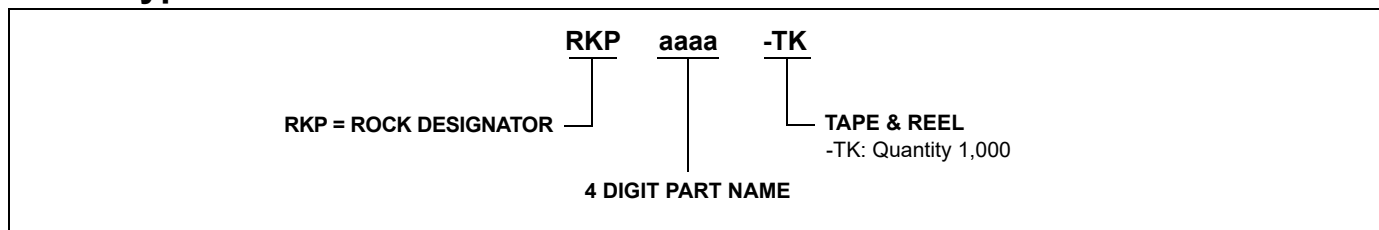
Wireless Noise Cancellation Parts



D2 Types



RKP Types



TW Types

TW **aaaa** **bb** - **c** **d** **e** **f** **g#** - **h** **j** **k** **l**

PREFIX ——— TW

DEVICE NUMBER ——— aaaa bb - c

AT: Auto Wafer
EP: Epi Wafer

c - PROCESS ——— c

This character is included in the marking of legacy products only.

PROCESS	CODE
TSMC, 0.35µm, Polycide, SPQM or SPTM Logic	A
TSMC, 0.25µm	B
X-FAB, 0.25µm	C
TSMC, 0.18µm	D
X-FAB, 0.18µm	E
TSMC, 0.18µm, EPI, Ar Anneal, Hi	G
Goyatek/Vanguard, 0.25µm	H
TSMC 0.25µm EPI, Ar Anneal, Hi	J
TSMC 0.18µm Automotive Process	K
TSMC 0.13µm	M
TSMC 90nm	N
Fujitsu 90nm	P
TSMC 0.13µm 12" Wafer	Q
TSMC 65nm	R
TSMC 45nm	S

d - ASSEMBLY VENDOR ——— d

This character is included in the marking of legacy products only.

ASSEMBLY VENDOR	CODE
ASEK	A
ASECL	B
GAPT	C
i2a/IPAC, Quick Pak	D
SPIL	E
ChipMOS	G
UTAC	J
Fujitsu	K
Amkor Korea	M

e - ——— e

Q: 12" Wafer

f - PACKAGE TYPE A ——— f

PACKAGE TYPE	CODE
BGA package	B
LQFP package	L
PQFP package	P
TQFP package	T
QFN package	N
PQFP package with Exposed Heat Spreader	E

g# - DIE REVISION ——— g#

It starts from A1. If full layers are changed, the die revision changes like A1→B1→C1, etc.
If some layers are changed, the die revision changes like A1→A2→A3, etc.

h - PACKAGE TYPE B ——— h

PACKAGE TYPE	CODE
Green (Halogen Free) and Lead Free package	G (Note)
Normal package	N
Green (Halogen Free) and Lead Free package with Cu Bond Wires	C
Flip Chip	F

Note: The following FG's also use Cu wire:
TW6815-LA1-GR
TW6816-LA1-GR
TW6817-LA1-GR
TW6818-LA1-GR
TW6932-LA1-GR

j - PACKAGE TYPE C ——— j

PACKAGE TYPE	CODE
Drop-in heat spreader	D
Exposed heat spreader	E
Regular package without heat spreader	R

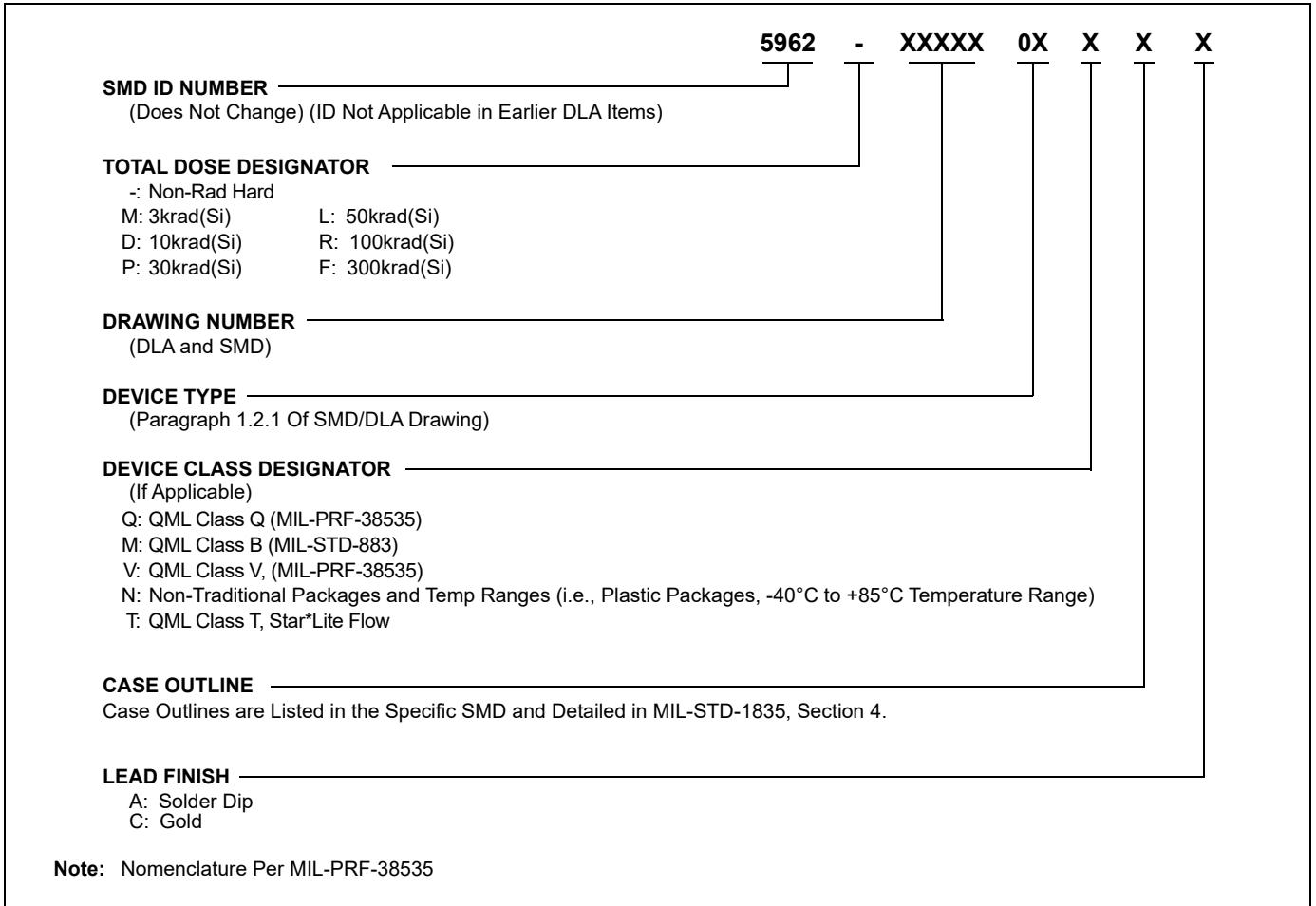
k - PACKAGE VARIANT ——— k

PACKAGE VARIANT	CODE
This is only used when one product type is offered in 2 different sizes or lead counts of the same package style. The last FG# created will include the lead count.	128 (lead count)

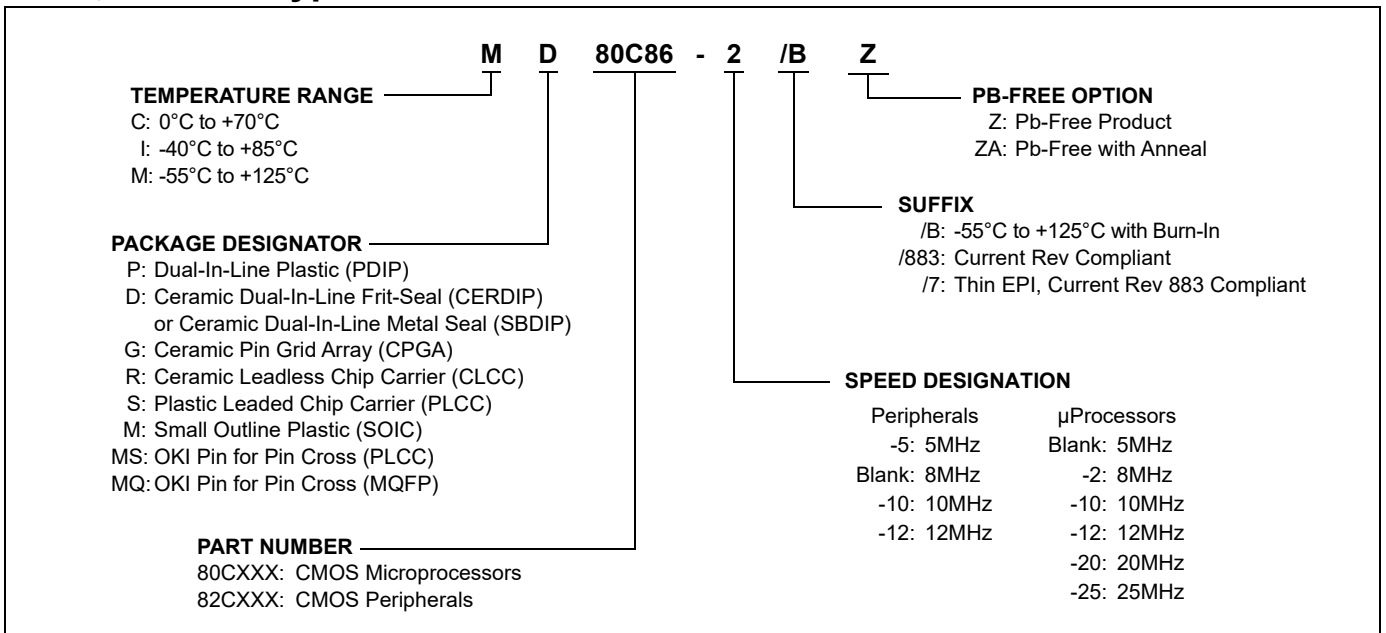
l - OPTIONS ——— l

S = SLT
B = Burn-in
H = High Temp. Testing
I = Industrial
V = High Volt Testing
T = Tape & Reel Packing

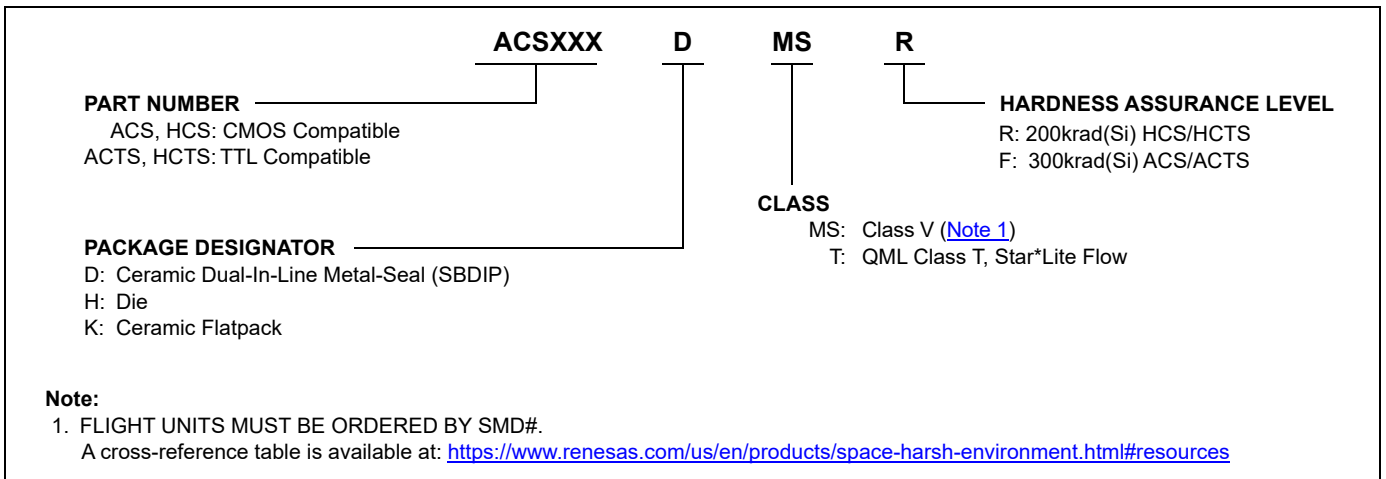
5962 SMD/DLA - QML Types



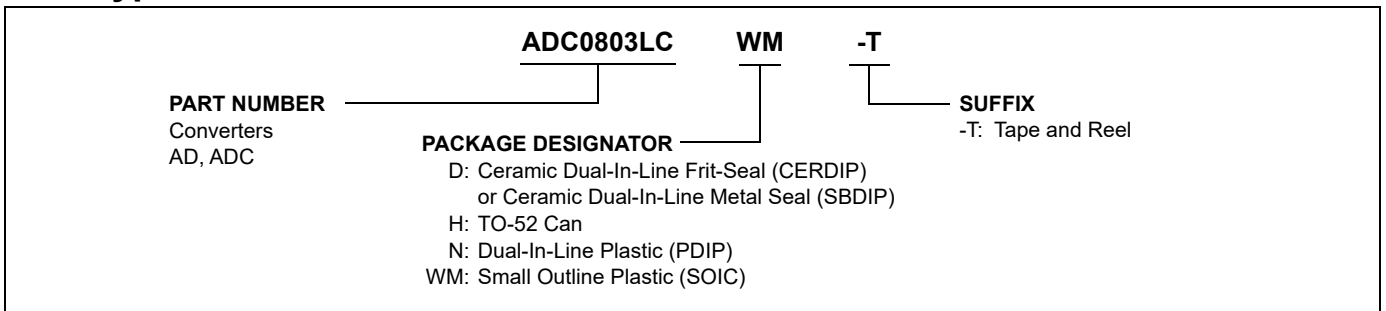
80C, 82CXXX Types



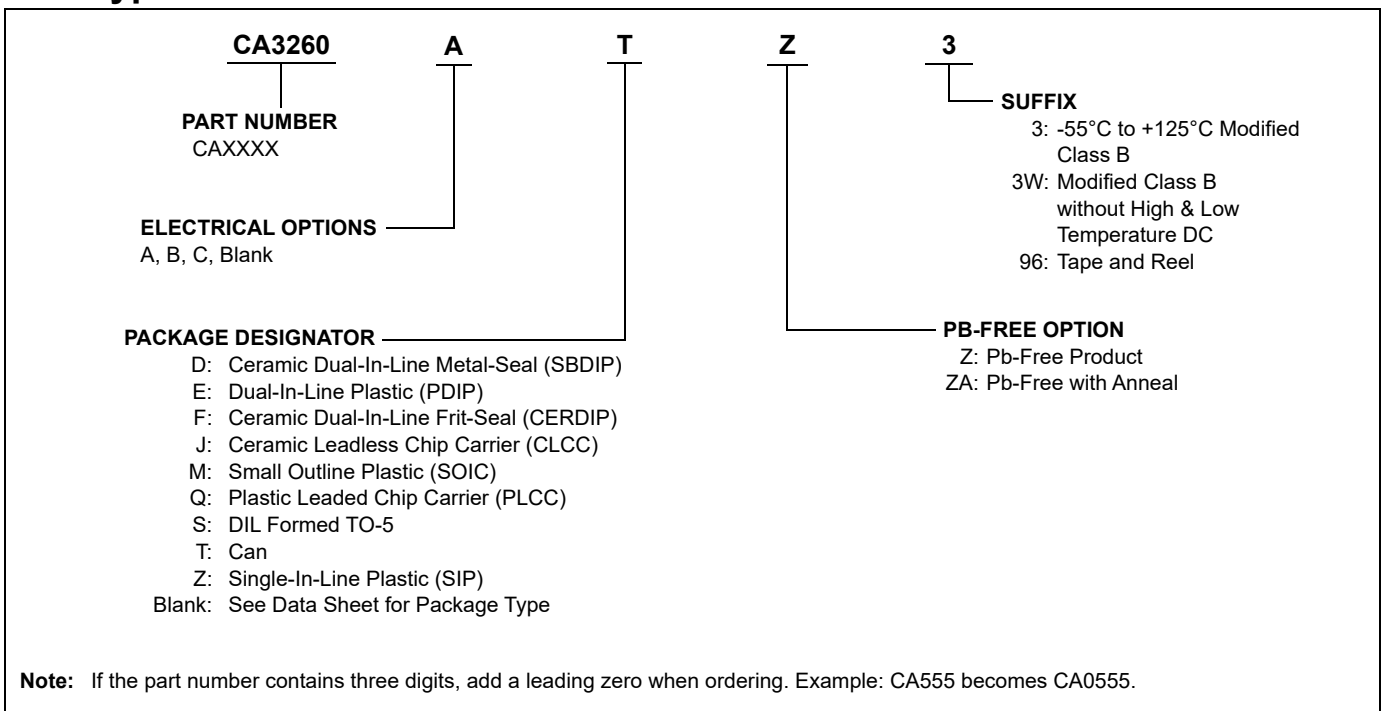
ACS, ACTS, HCS, HCTS Radiation Hardened Types



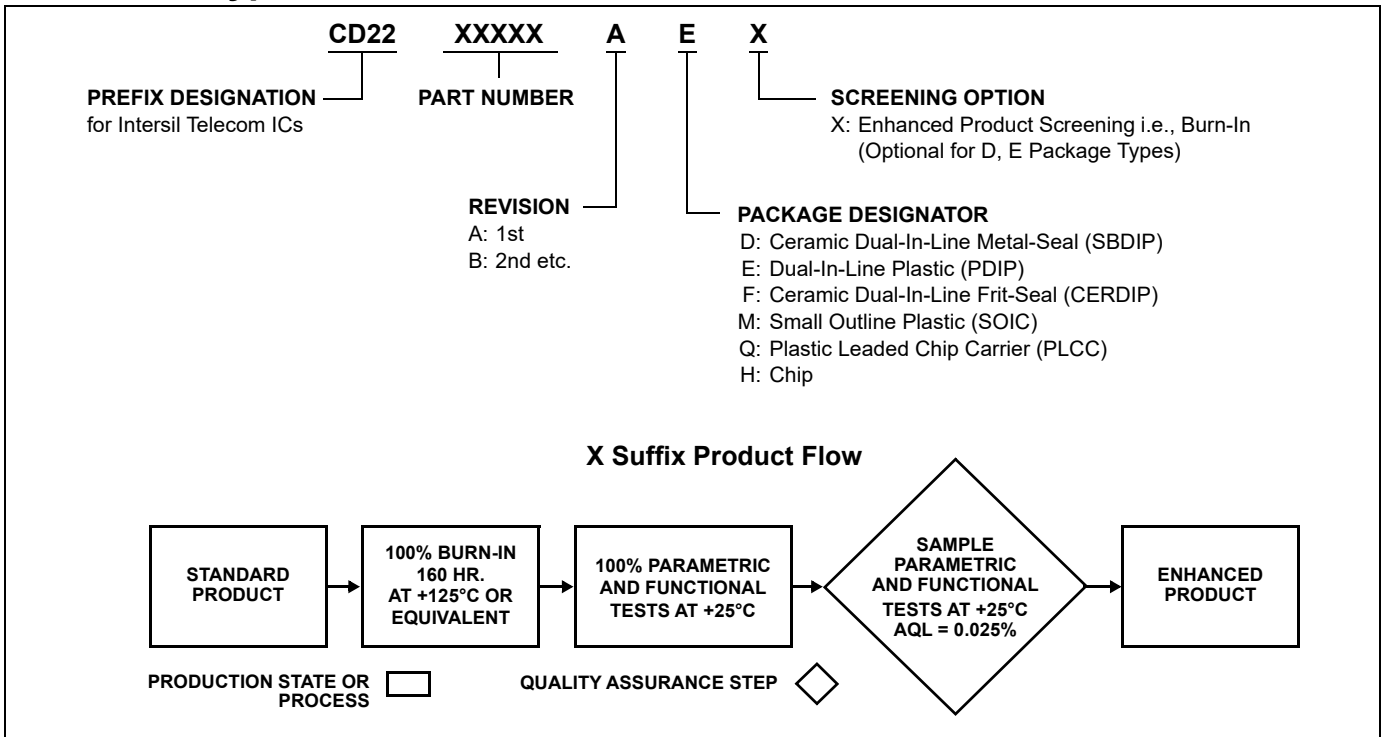
AD Types



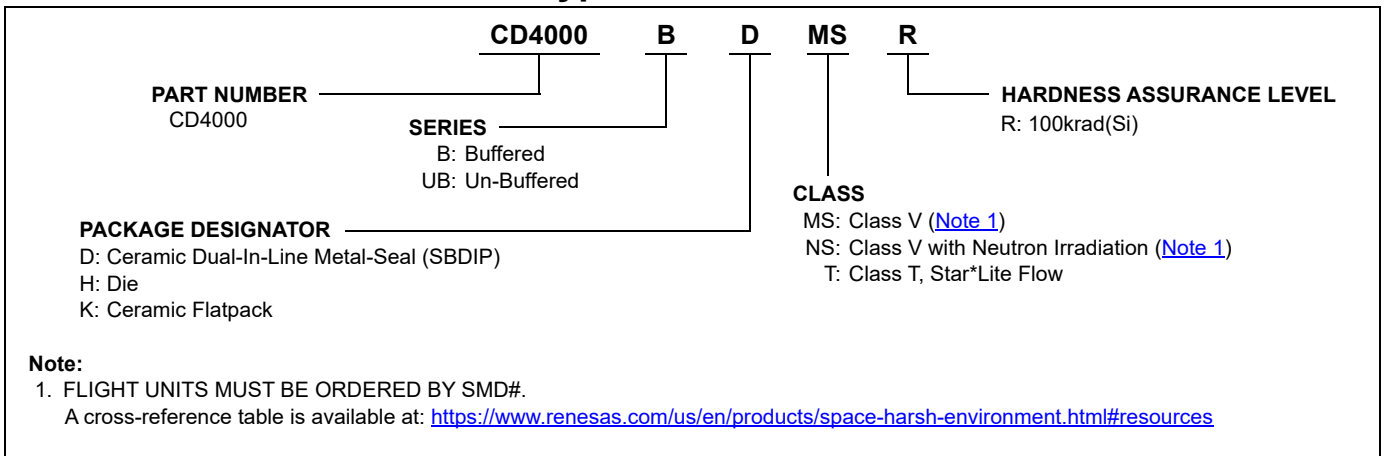
CA Types



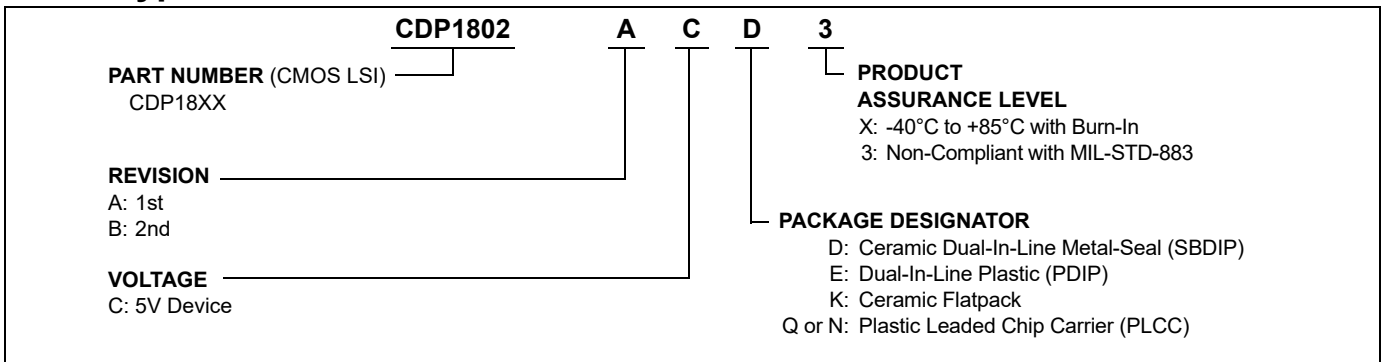
CD22XXX Types



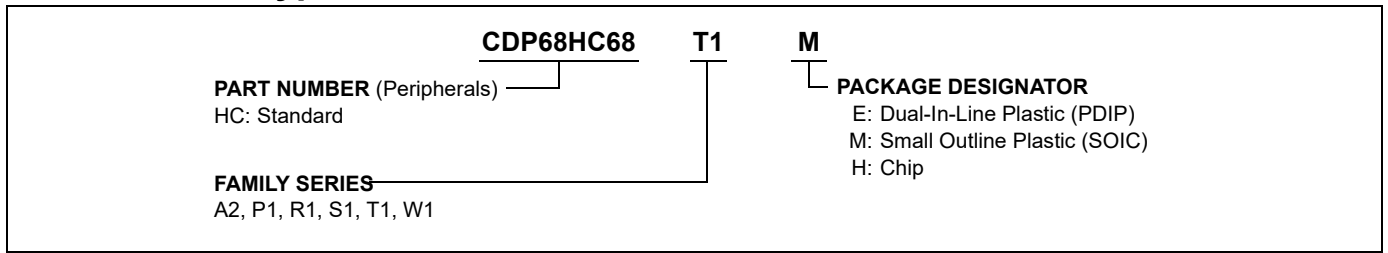
CD4000 Radiation Hardened Types



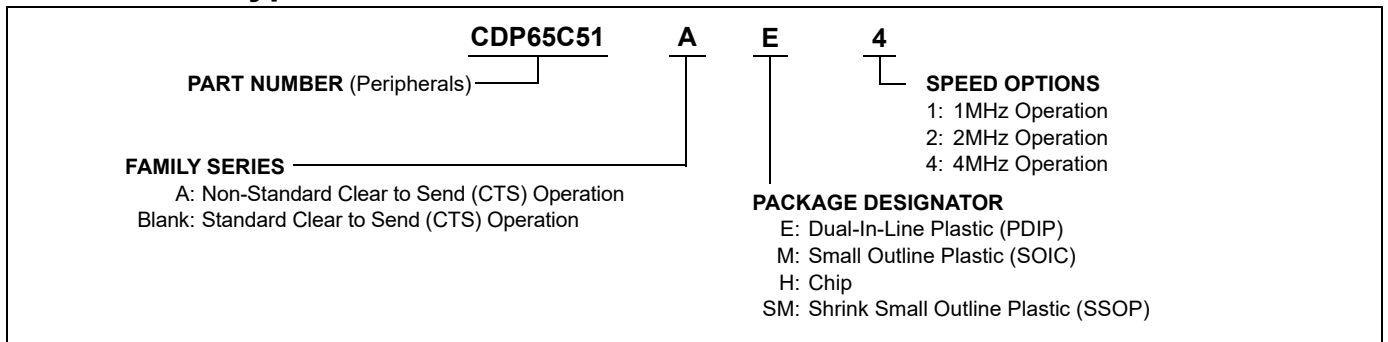
CDP Types



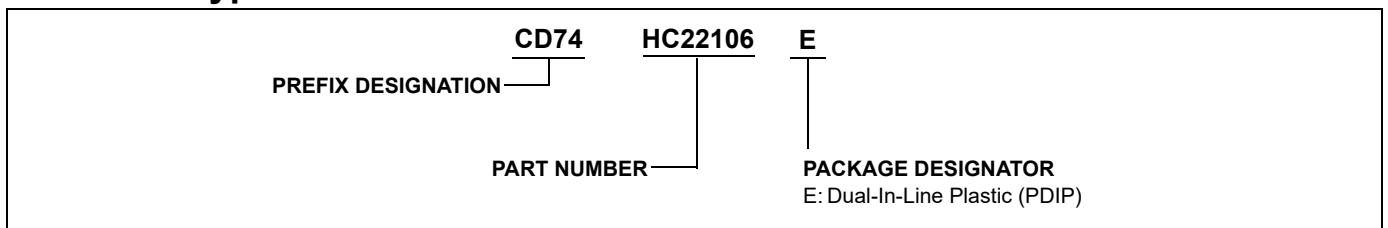
CDP68HC68 Types



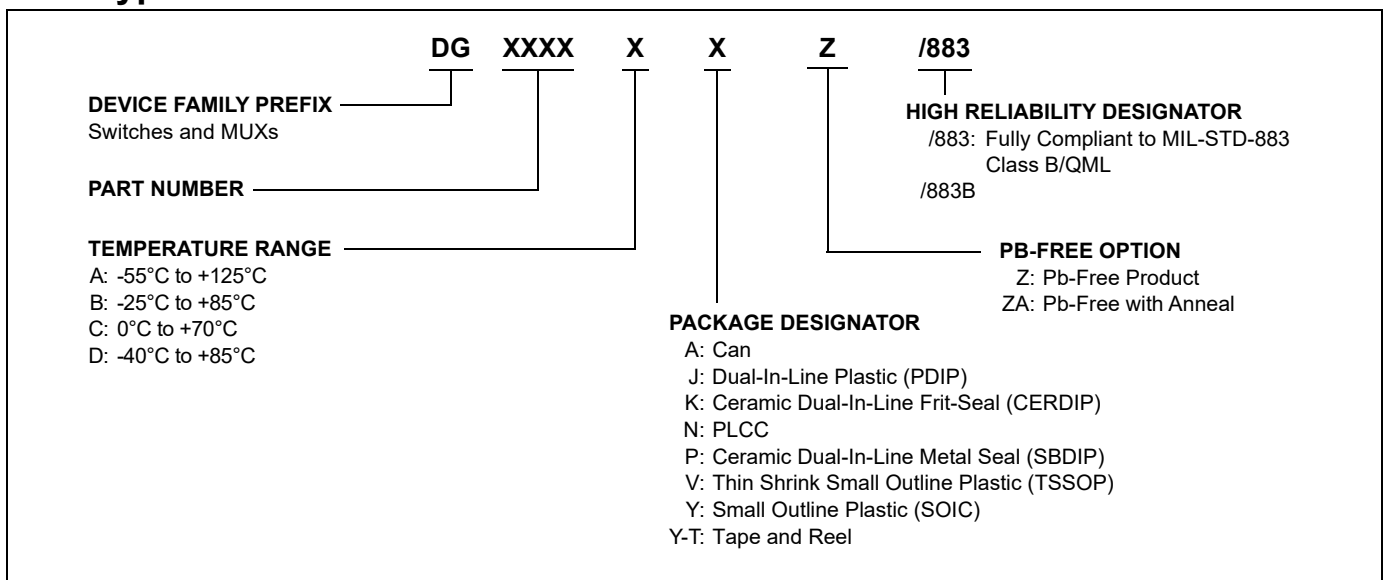
CDP65C51 Types



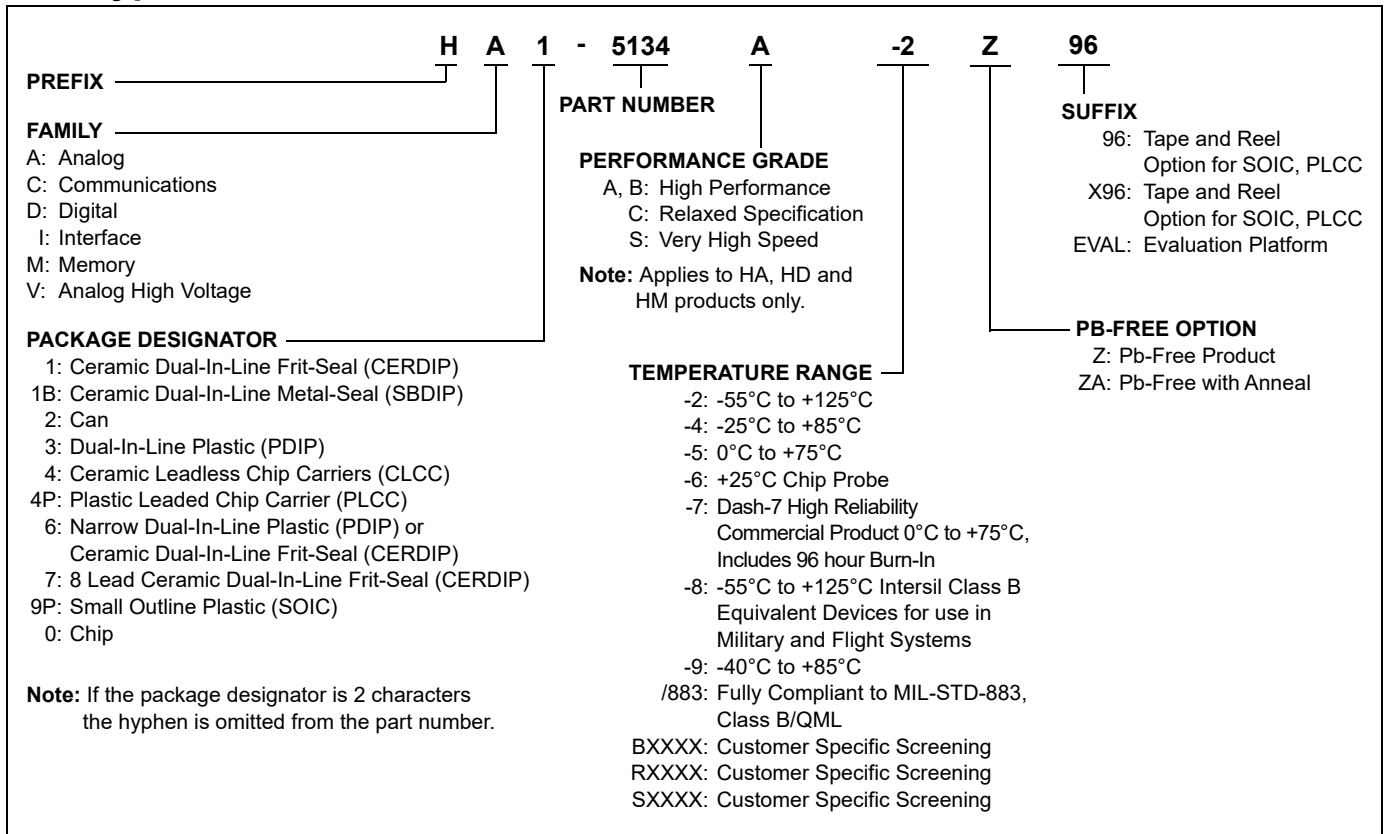
CD74HC Types



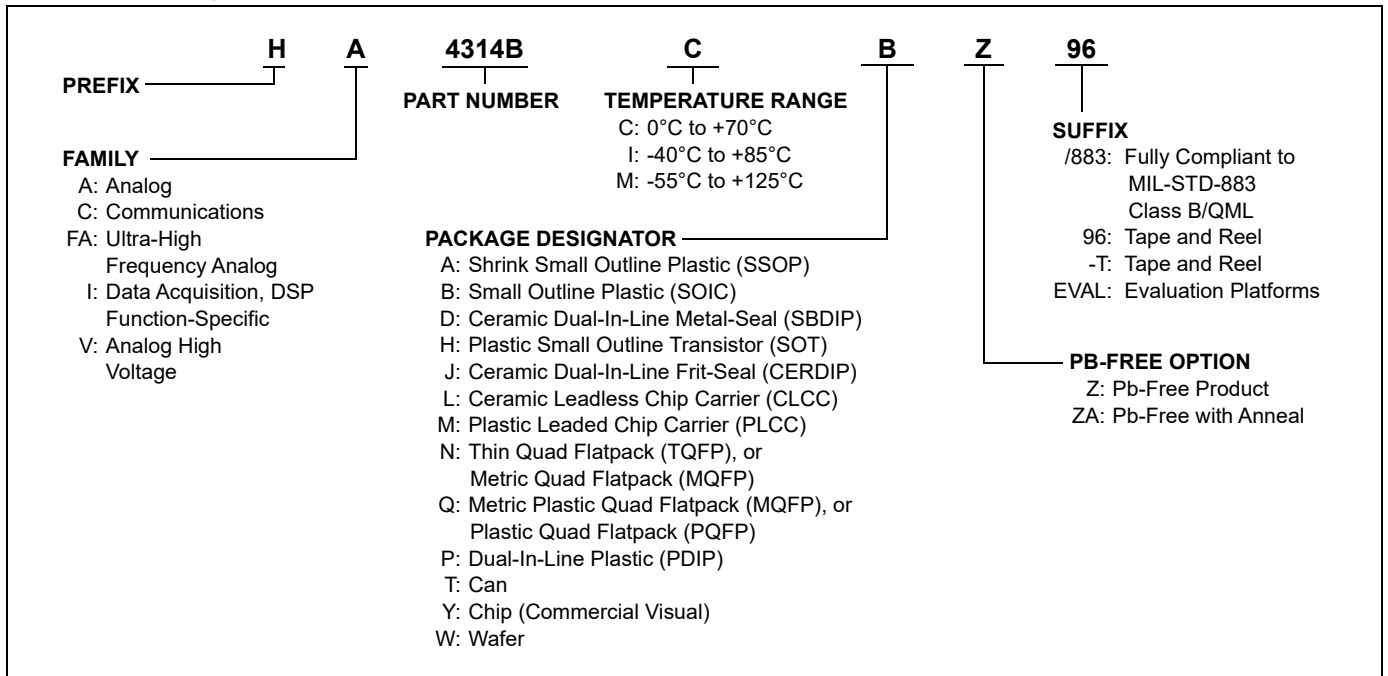
DG Types



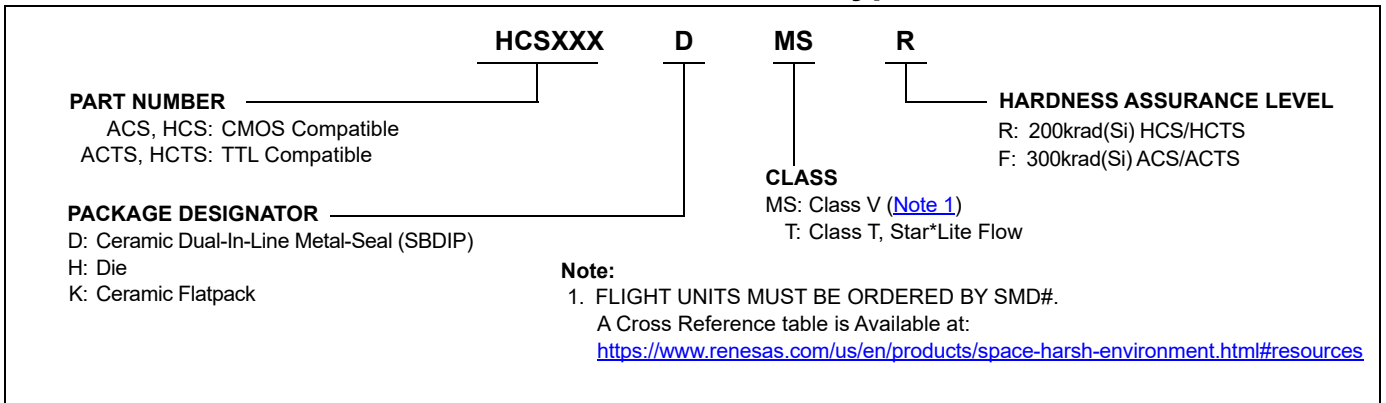
HX Types



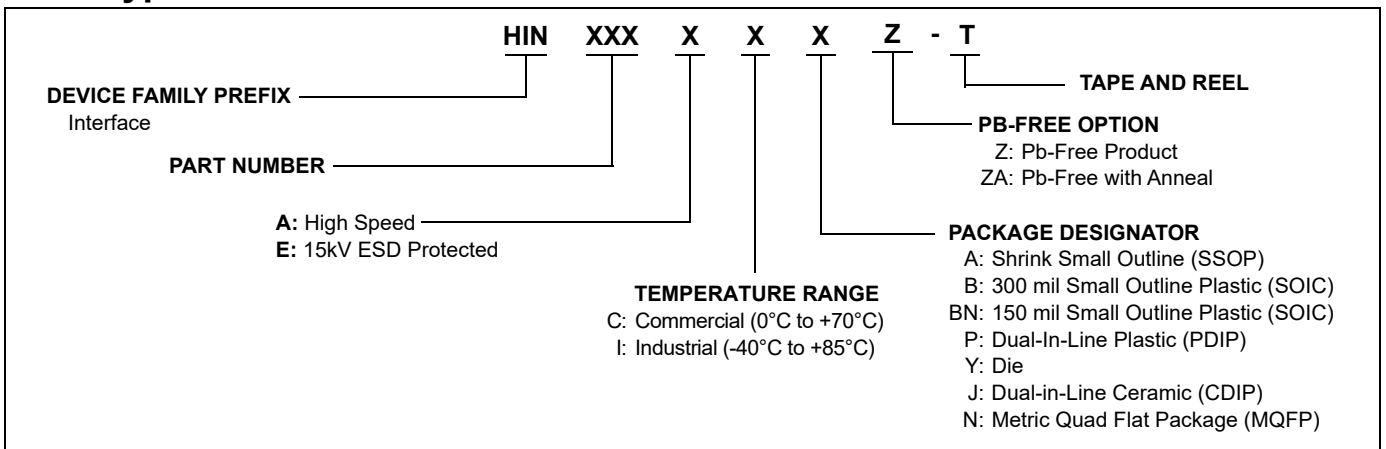
HX, HXX Types



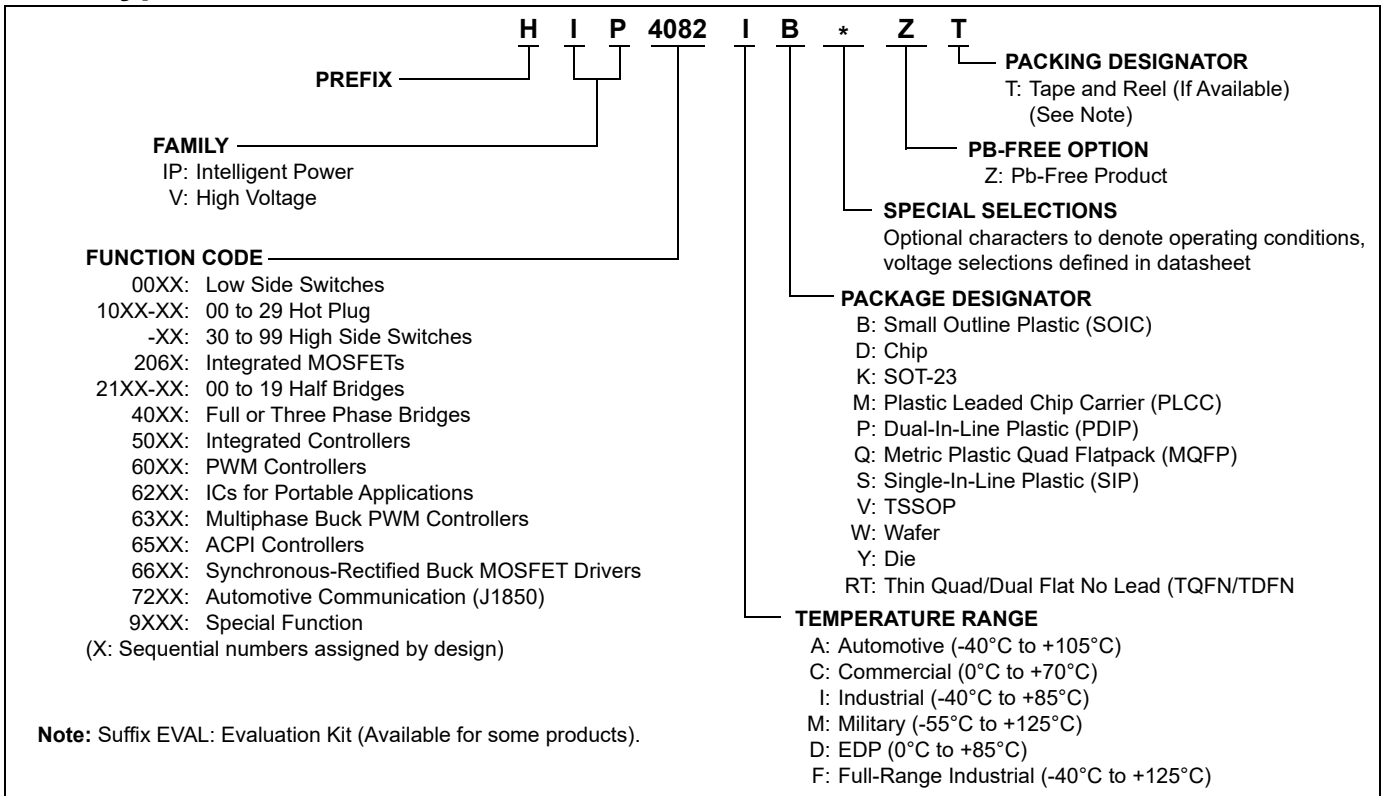
HCS, HCTS, ACS, ACTS, Radiation Hardened Types



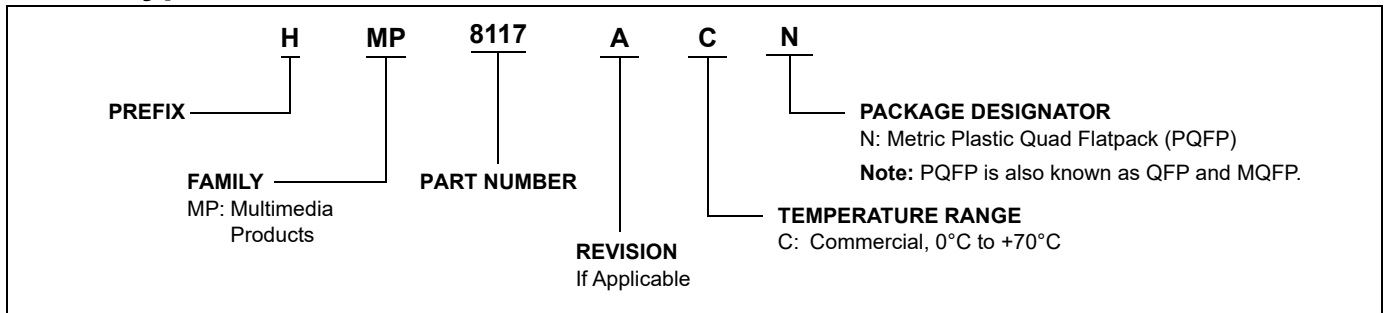
HIN Types



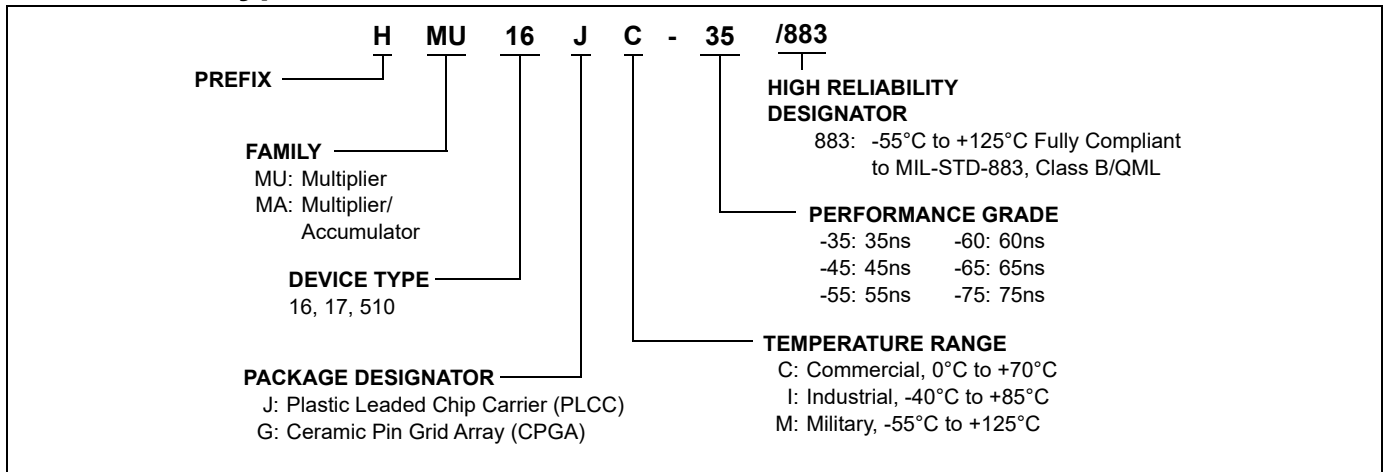
HIP Types



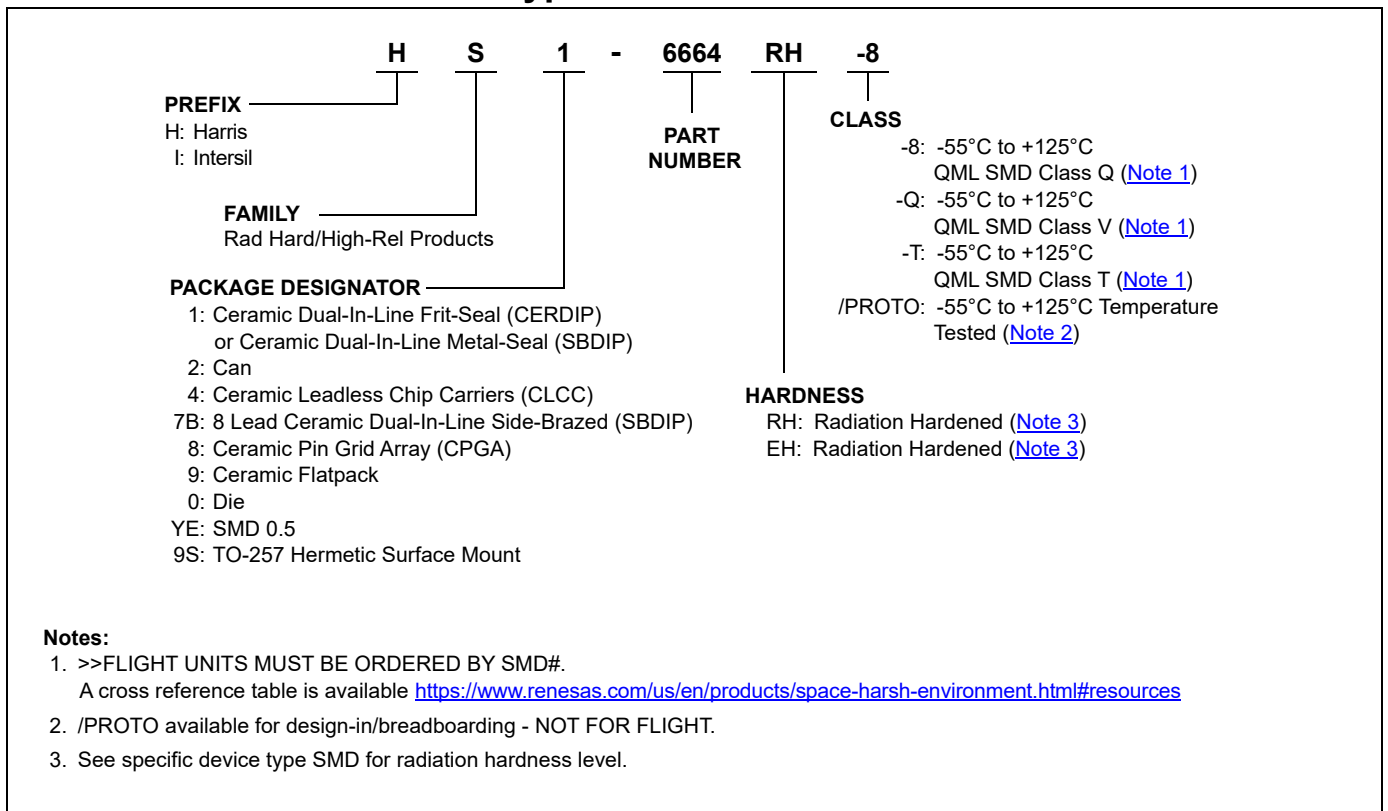
HMP Types



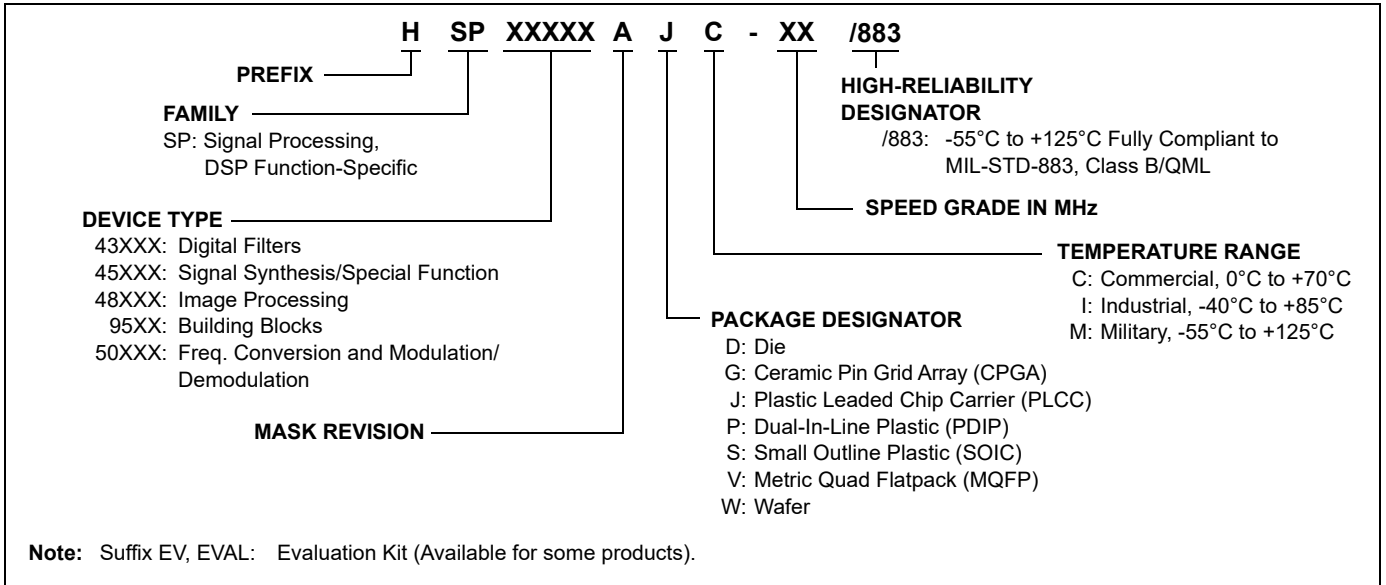
HMU/HMA Types



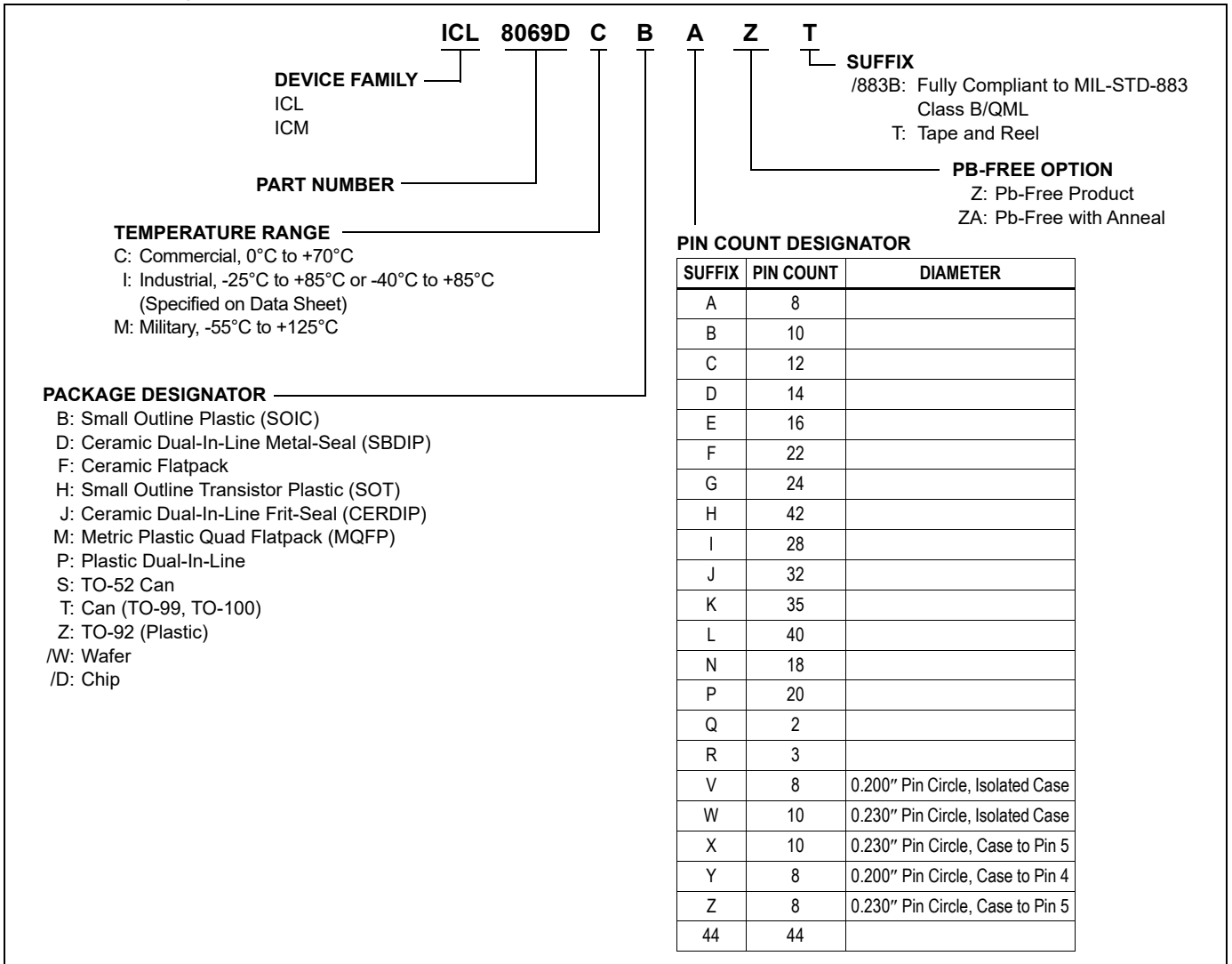
HS/IS Radiation Hardened Types



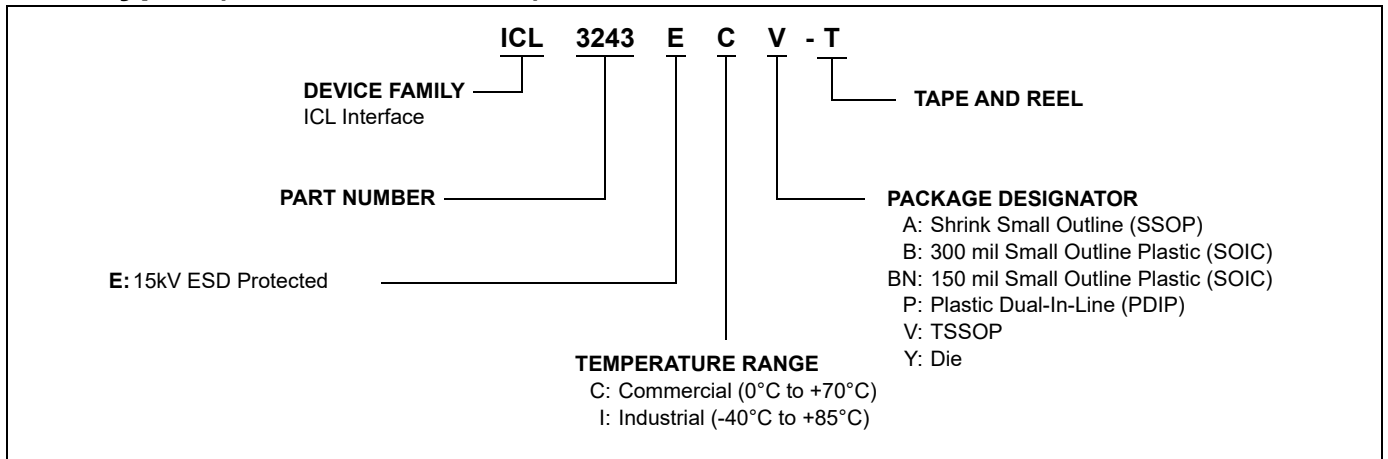
HSP Types



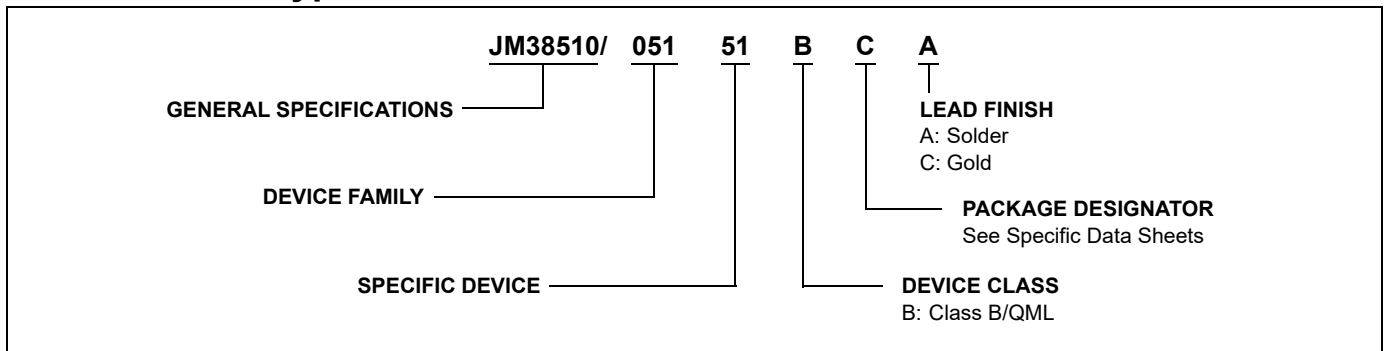
ICL, ICM Types



ICL Types (Interface Circuits)



JM JAN-QML Types



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