Semelab Limited

Generic Component
Part Naming Convention

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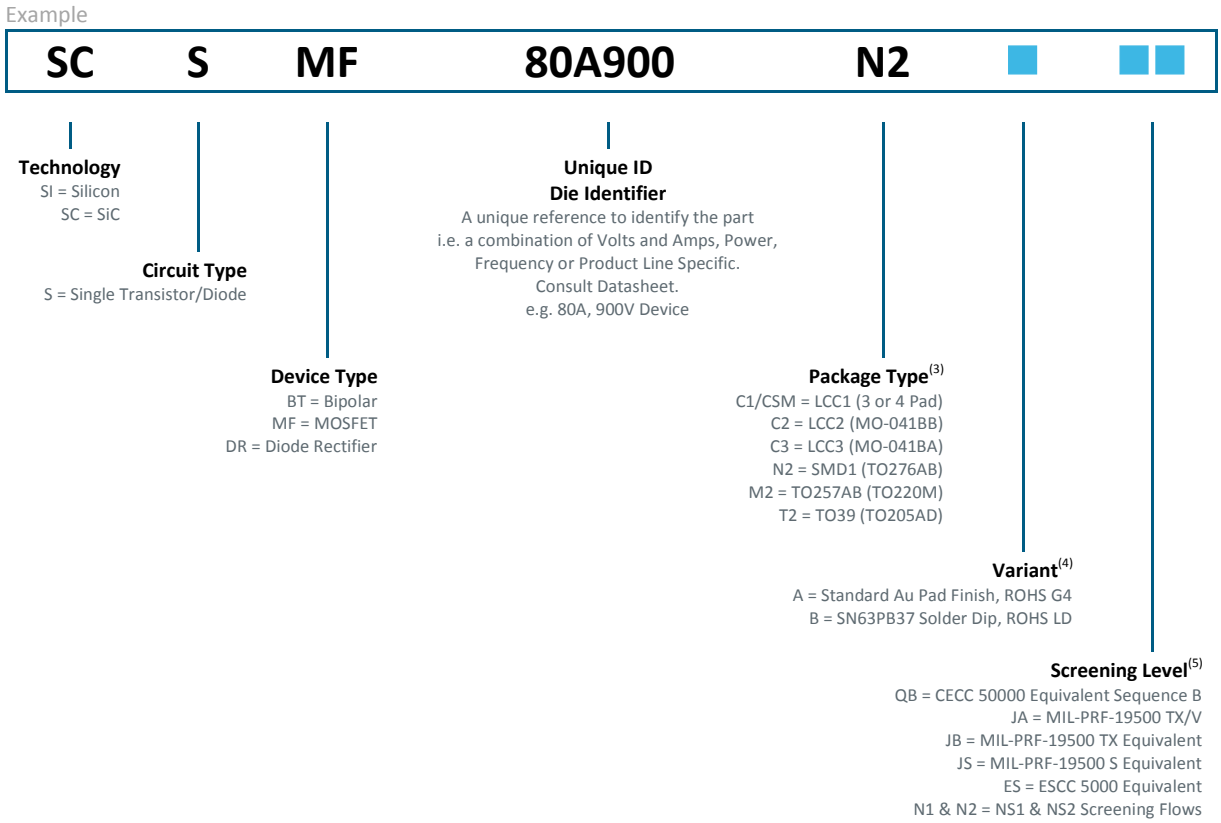
1 Semelab Internal Discrete Part Number Scheme

This scheme is presented to accommodate part numbering of new TT Electronics generated discrete semiconductor product designs. The first 14 characters are utilised to offer product affinity with an additional two characters used to identify additional screening and conformance testing to specific standards. Additional options may be applicable and are denoted by two further characters at the end of the part number – see the full selection in section 4 below.

Notes (1) and (2) apply for this scheme.



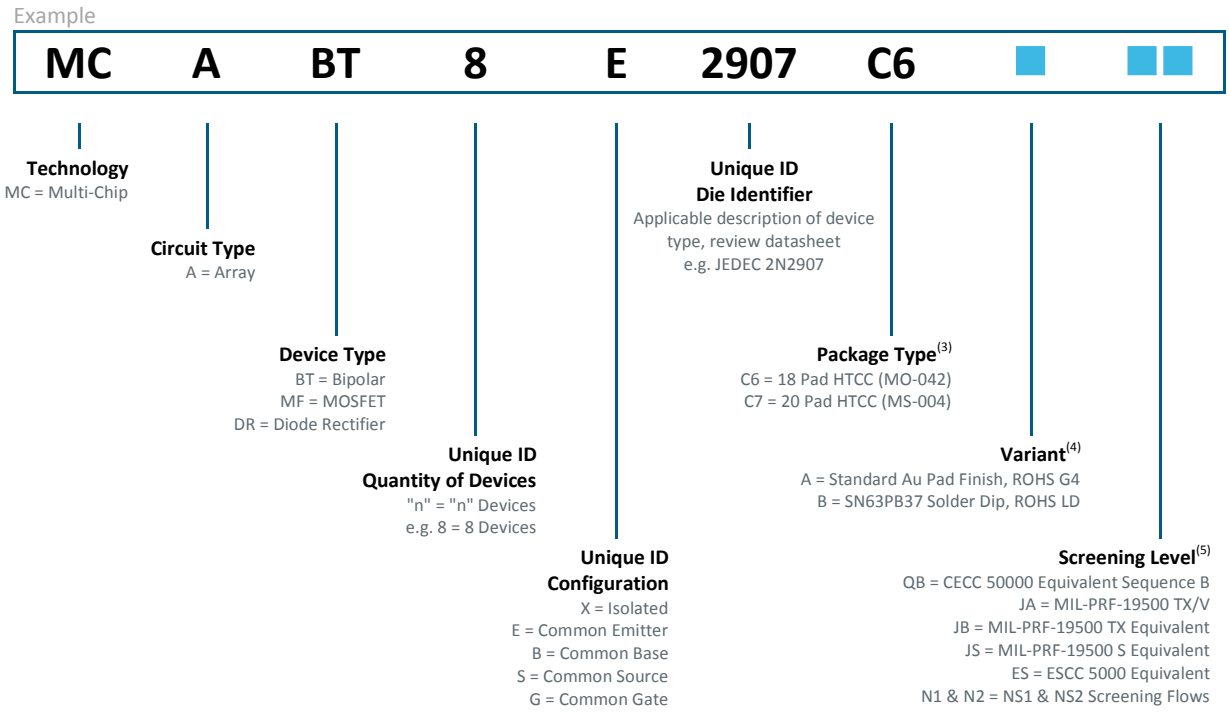
Notes

(1) Specific part types and variants are detailed on the product datasheet, which takes precedence.
(2) The above scheme represents a limited list of options for this range. For full detailed list, see Section 4 of the Generic Part Naming Convention document.
(3) For full list of package codes, see Section 4 of the Generic Part Naming Convention document.
(4) Can refer to termination finish or other variant types. Consult the product datasheet for more information.
(5) See High Reliability and Screening Handbook for more options.

2 Multi-Chip Array Part Number Scheme

This scheme is presented to accommodate part numbering of new TT Electronics generated multi-chip array semiconductor product designs. The first 14 characters are utilised to offer product affinity with an additional two characters used to identify additional screening and conformance testing to specific standards. Additional options may be applicable and are denoted by two further characters at the end of the part number – see the full selection in section 4 below.

Notes (1) and (2) apply for this scheme.



Notes

(1) Specific part types and variants are detailed on the product datasheet, which takes precedence.
(2) The above scheme represents a limited list of options for this range. For full detailed list, see Section 4 of the Generic Part Naming Convention document.
(3) For full list of package codes, see Section 4 of the Generic Part Naming Convention document.
(4) Can refer to termination finish or other variant types. Consult the product datasheet for more information.
(5) See High Reliability and Screening Handbook for more options.

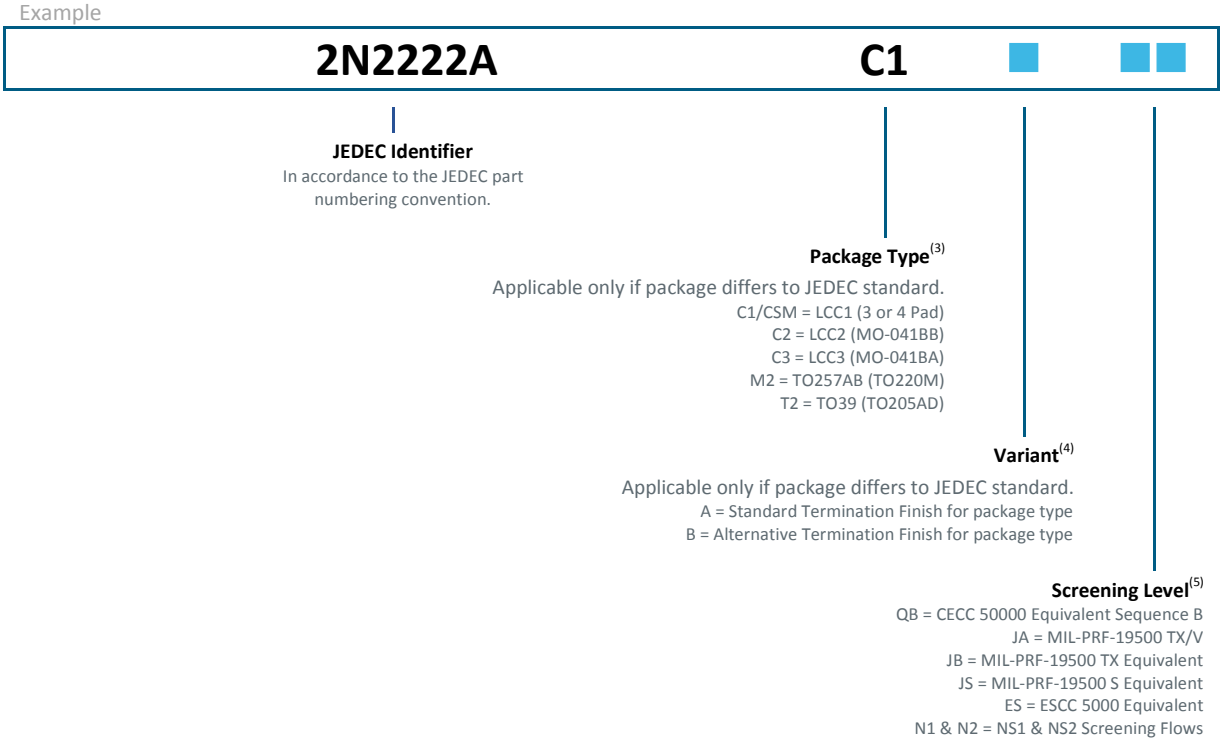
3 Legacy & JEDEC / Pro Electron Discrete Part Number Scheme

This scheme is presented to accommodate part numbering where a legacy part number or JEDEC/Pro Electron designation exists and we provide modifications to support customer requirements. The first section of characters represents the existing product designation. The next three characters are used to provide the differentiation from the existing product and are captured in the product datasheet. The final two characters identify any additional screening and conformance testing to specific standards. Additional options may be applicable and are denoted by two further characters at the end of the part number – see the full selection in section 4 below.

Customer specific variant part numbers can be offered where a numerical value is used in the Screening Level region to ensure any special customer specific procurement requirements (device detail specification; Source / Procurement Control Drawings; or datasheets etc) are maintained. Please contact TT Electronics Lutterworth customer services.

Notes (1) and (2) apply for this scheme.

Example



Notes

(1) Specific part types and variants are detailed on the product datasheet, which takes precedence.
(2) The above scheme represents a limited list of options for this range. For full detailed list, see Section 4 of the Generic Part Naming Convention document.
(3) For full list of package codes, see Section 4 of the Generic Part Naming Convention document.
(4) Can refer to termination finish or other variant types. Consult the product datasheet for more information.
(5) See High Reliability and Screening Handbook for more options.

Generic Component Part Naming Convention

4 Full Selection – Part Number Scheme

Note (1) applies for this scheme.

Example

MC	A	BT	8E2907	C6	A	ES	■■

Technology
SI – Silicon
SC – Silicon Carbide
GN – Gallium Nitride
XT – Mixed Technology
MC – Multi chip

Circuit Type
<u>Diode</u>
S – Single Diode
Y – Single Dual Anode / Common Cathode
M – Dual Diode Common Cathode
A – Dual Diode Common Anode
R – Dual Diode Series Centre Tap
B – Quad Diode Bridge Circuit

<u>Transistor</u>
S – Single Transistor

<u>Multi-Chip</u>
D – Dual
C – Co-Pack
Q – Quad
A – Array

<u>Linear</u>
L – Linear Reference

Device Type
DR – Diode Rectifier
DZ – Diode Zener
DS – Diode Schottky
DL – Diode CLD
JF – Junction FET
MF – MOSFET
BT – Bipolar Transistor
BD – Bipolar Darlington
XS – Mixed Semiconductors
VR – Voltage Reference

Unique ID
Die Identifier
A unique reference to identify the part i.e. a combination of Volts and Amps, Power, Frequency or Product Line Specific. For Multi-Chip products this may also refer to quantity of devices and configuration. JEDEC reference may also be used. Consult the product datasheet.

Package Type
C1 – LCC1
C2 – LCC2
C3 – LCC3
C4 – LCC4
C6 – LCC6
C7 – LCC10
C8 – LCC28
C9 – LCC2-S

D2 – DLCC2
D3 – DLCC3

M1 – TO257AA
M2 – TO257AB
M3 – TO254
M4 – TO258
M5 – TO258D
M6 – TO267

N1 – SMD0.5
N2 – SMD1
N3 – SMD2
N4 – SMD0.2
N5 – SMHTV1 (2 Terminal)
N6 – SMHTV2 (3 Terminal)

O1 – TO220
O2 – TO247
O3 – TO264

P1 – TO3 (1mm Pins)
P2 – TO3 (1.5mm Pins)
P3 – TO6

T1 – TO18
T2 – TO39
T3 – TO5
T4 – TO72

Variant
Variants for lead finish and pin function are dependent on the package choice and design. Consult the product datasheet.

Screening Level
JS – JQRS
JA – JQRA
JB – JQRB
ES – ESA5000
RE – 100KRAD(Si) & ESA50001[2]
RJ – 100KRAD(Si) & JANS[2]
N1 – NS1 Screening Flow
N2 – NS2 Screening Flow
01 – Customer Specific
AU – Grp A & Unscreened [3]
AB – Grp A & Screen Seq. B [3]
EB – Grp B Lvl E & Screen Seq. B [3]
FB – Grp B Lvl F & Screen Seq. B [3]
QB – Grp B + C Lvl E & Screen Seq. B [3]
CB - Grp B + C Lvl F & Screen Seq. B [3]
XX – No Conformance test or screen

Additional Options
VP – Visitor Pre-Cap (Customer Pre-Cap Visual Inspection)
VB – Visitor Buy-Off (Customer Buy-Off Visit)
DP – Data Pack
SS – Solderability Samples
SM – Scanning Electron Microscopy
XR – X-Ray (Radiography)
RD – Destructive Radiation Test Samples
RS – Single Event Radiation Test
RT – Total Ionising Dose Radiation Test
GB – Charge for Group B
BM – Group B Destructive Mechanical Samples
GC – Charge for Group C
CE – Group C Destructive Electrical Samples
CM – Group C Destructive Mechanical Samples
1L – Charge for Lot Validation Testing (SG1,2&3)
1E – LVT1 Destructive Environmental Samples
1M – LVT1 Destructive Mechanical Samples
2L – Charge for Lot Validation Testing (SG2&3)
2E – LVT2 Endurance samples (SG2)
3L – Charge for Lot Validation Testing (SG3)
3D – LVT3 Assembly Capability samples (SG3)
PS – Destructive Physical Analysis samples (DPA)
WA – Charge for Wafer Lot Acceptance Testing
01 – Customer Specific
EM – Engineering Model Samples
BB – Bread Board Samples
IV – Internal Vapour (Internal Gas Analysis) Samples
IC – Charge for Internal Vapour (Internal Gas Analysis)
SA – Salt Atmosphere Samples
SC – Charge for Salt Atmosphere Testing
TR – Tape & Reel

Table 1

Total Ionising Dose (RAD(Si))	MIL-PRF-19500 table E-II	ESCC 22900 4.2
3,000	M	M
10,000	D	D
20,000	-	E
30,000	P	P
50,000	L	F
100,000	R	R
300,000	F	-
500,000	G	-
1,000,000	H	H

Notes

(1) Specific part types and variants are detailed on the product datasheet, which takes precedence.
(2) 'R' indicates the RAD Hard designation for 100KRAD(Si) as per ESCC22900 para 4.2 or MIL-PRF19500 table E-II. Refer to these tables and substitute the relevant letter as applicable. See Table 1.
(3) CECC Sequence B equivalent shown. Second character refers to screening sequence i.e. "A" for sequence A & "U" for unscreened.