

Diode Dice

C-DWEP 69-12	(Sample)
	Packing method
C	Single dice in trays, electrically tested
W	Dice in wafers on foil, sawed, electrically tested, inked bad die
T	Dice in wafers, unsawed, electrically tested, inked bad die
	Die function
D	Silicon rectifier diodes
W	Unpacked die
	Process characteristic
E	Super fast diode
F	Fast diode, $t_{rr} \approx 1 \mu s$
L	Super fast diode (low leakage current) HiPerFRED
S	Schottky-Diode
N	Planar passivated die, normal polarity, cathode upside
P	Planar passivated die, inverse polarity, anode upside
69	Number specifying the size of the die
-12	Voltage class, 12 = 1200 V

Breakover Diode Dice

C-BWP 1-10	(Sample)
	Packing method
C	Dice, single in trays, electrically tested
T	Dice in wafers, unsawed, electrically tested, inked bad die
W	Dice in wafers on foil, sawed, electrically tested, inked bad die
B	Breakover diode
W	Unpacked die
P	Planar passivated die (cathode upside)
1	Number specifying the size of the die
-10	Voltage class, 10 = 1000 V

Discrete Rectifier Diodes

DSAI 35-16A	(Sample)
DS	Silicon rectifier diode (anode = housing)
A	Avalanche characteristic
D	Fast high voltage rectifier diode
E	Fast Recovery Epitaxial Diode (FRED)
P	Double diode (phase leg)
S	Schottky diodes
I	Inverse polarity
K	Double diode (common cathode)
P	Inverse polarity (cathode = housing)
35	Current rating of die in amperes
-16	Voltage class, 16 = 1600 V
A	Version A (see drawing)
F	ISOPLUS-I4
R	ISOPLUS-247
S	D ² Pack; TO-263
T	D ³ Pack; TO-268
X	PLUS 247 (TO-247 without mounting hole)

Discrete Fast Diodes

DSEI 2x61-12A	(Sample)
DS	Silicon rectifier diode
DG	Gallium Arsenide Schottky Diode
E	Fast Recovery Epitaxial Diode (FRED)
S	Schottky diode
I	Standard FRED
C	HiPerFRED™ common cathode configuration
K	Standard FRED and Gallium Arsenide common cathode configuration
P	HiPerFRED™
2x	Two single diodes in one housing
61	Current rating of die in amperes
-12	Voltage class, 12 = 1200 V
A	Version A = Standard t_{rr}
B	Version B = Super fast
C	Version C = Ultra fast
AJ	TO-268 (D ³ Pack with long leads)
AR	Version A, in ISOPLUS 247
AS	Version A, in TO-263 SMD
AT	Version A, in D ³ Pack

Thyristor Dice

W-CWP 55-12/18	(Sample)
W	Packing method
C	Dice in wafers on foil, sawed, electrically tested, inked bad die
T	Dice, single in trays, electrically tested
	Dice in wafers on foil, sawed, electrically tested, inked bad die
C	Die function
	SCR
W	Unpacked die
P	Process characteristic
	Planar passivated die (cathode upside)
55	Number specifying the size of the die
12/1	Voltage class, 12/18 = 1200 to 1800 V
8	

Discrete Thyristors

CS 35-12io4	(Sample)
CS	SCR
35	Current rating of thyristor in amperes
-12	Voltage class, 12 = 1200 V
i	Critical dv/dt-class, $i \geq 1000$ V/ μ s $d \geq 20$, $g \geq 200$, $h \geq 500$, $i \geq 1000$, $m \geq 5000$ V/ μ s, $z = \text{typ.}$ (see data sheet for values)
o	Turn-off time t_q (DIN 41787), $o = \text{typ.}$ (see data sheet for values) $y \leq 50$, $x \leq 40$, $w \leq 30$, $v \leq 25$, $u \leq 20$, $p \leq 15$, $t \leq 12$, $s \leq 10$, $r \leq 8$ μ s
4	Version 4
F	ISOPLUS-I4
R	ISOPLUS-247

Single and Three Phase AC Controller Modules

MMO 75-16io1	(Sample)
M	Module
V	Epoxy moulded bridge
M	Single phase, controlled (two thyristors)
L	Single phase, half-controlled (thyristor/diode)
W	Two and three phase, controlled
O	No meaning. Reserved for future function
75	Current rating (eff.), 75 = 75 A~
-16	Voltage class, 16 = 1600 V
i	Critical dv/dt-class, $i \geq 1000$ V/ μ s
o	Turn-off time t_q , o = typ. (see data sheet for value)
1	Version 1

Thyristor/Diode Modules

MCC 312-16io1	(Sample)
F	ISOPLUS-I4
M	Module
C	SCR
D	Diode
C	SCR
D	Diode
O	Single thyristor or diode
312	Current rating of module in amperes
-16	Voltage class, 16 = 1600 V
i	Critical dv/dt-class, $i = 1000$; $I = 2000$ V/ μ s
N	Standard diode
o	Turn-off time t_q , o = typ. (see data sheet for value)
1	Version 1 (thyristor: aux. cathode and gate; diodes: version only)
8	Version 8 (gate only)

FRED Modules

MEA 160-06DA	(Sample)
M	Module
E	FRED
P	HiPerFRED™
A	Double diode (common anode)
E	Double diode (phase leg)
K	Double diode (common cathode)
O	Single diode
160	Current rating of module in amperes
-06	Voltage class, 06 = 600 V
D	Fast diode with defined t_{rr}
A	Version A

Single and Three Phase Rectifier Bridge

VBO 20-16NO1	(Sample)
F	ISOPLUS-I4
V	Epoxy moulded bridge
B	Single phase bridge, non-controlled
E	Special circuit
G	Single phase bridge, asymmetrical, half-controlled
H	Single phase bridge, symmetrical, half-controlled
K	Single phase bridge, controlled
U	Three phase bridge, non-controlled
UG	Power module with IGBT
UM	Power module with MOSFET
T	Three phase bridge, controlled
V	Three phase bridge, half-controlled
W	Three phase bridge
B	Braking system (IGBT/FRED)
C	Separate thyristor
E	Super Fast Diode (FRED)
F	Free-Wheeling Diode
O	Without function, dummy
Y	Special circuit
Z	Thyristors, cathodes connected
B	Braking system (IGBT/FRED)
D	Additional diode
W	AC controller output
20	Current rating of bridge in amperes
-16	Voltage class, 16 = 1600 V
A	Avalanche diode
N	Standard diode
g	Critical dv/dt (see thyristors)
O	Turn-off time t_q (DIN 41787)
1	Version 1

High Voltage Rectifier

UGE 0421 AY4	(Sample)
U	High voltage rectifier, U-Series
G	Non-controlled rectifier
B	Single phase bridge
D	Three phase bridge
E	One way circuit
Code for Number of semiconductors	
0	1 - 4
1	5 - 6
2	7 - 12
4	Number code for forward current in amperes 1: ≤ 3 ; 2: ≤ 12 ; 3: ≤ 16 , 4: ≤ 33 A etc.
2	Number code for type of built-in semiconductors
1	Number code for voltage 1: ≥ 1 -2 kV, 2: ≥ 2 -3 kV etc.
A	A = Avalanche Diode
Y	Housing type (see drawing) Y4 = round housing, A-N = plastic housing
4	

IGBT and MOSFET Dice

W-IXSD 40N60A	(Sample)
C	Dice, single in trays, electrically tested
T	Dice in wafers, unsawed, electrically tested, inked bad die
W	Dice in wafers on foil, sawed, electrically tested, inked bad die
I	IXYS
X	
	Die function
B	High voltage BIMOSFET
D	NPT-IGBT with SCSOA capability
E	CH-NPT IGBT
F	HiPerFET™ Power MOSFET
G	Fast IGBT
L	IGBT with SCSOA capability
M	Standard power MOSFET
S	IGBT with SCSOA capability
T	Standard power MOSFET
V	Standard IGBT
D	Unpacked die
40	Current rating, 40 = 40 A; IGBT = Value at T _C = 90°C; MOSFET = Value at T _C = 25°C
N	N-channel type
P	P-channel type
60	Voltage class, 60 = 600 V
A	Version
	Standard MOSFET: A = prime R _{DS(on)}
	IGBT: no letter = low V _{CE(sat)} (first generation, not for new designs)
	A = fast switching (first generation, not for new designs)
	B = high speed type (for medium speed circuits)
	C = light speed type (for high speed circuits)

IGBT and MOSFET Modules

MII 200-12S4	(Sample)
F	ISOPLUS-I4
M	Module
V	Module
D	Diode
I	IGBT with SCSOA capability
M	MOSFET
W	Three phase bridge
U	Uncontrolled input rectifier
D	Diode
E	IGBT (ISOSMART™)
I	IGBT with SCSOA capability
K	Common cathode
M	MOSFET
O	No meaning. Reserved for future function
BW	Brake chopper and IGBT sixpack
200	Current rating 200 = 200 A (T _C = 25°C)
-12	Voltage class, 12 = 1200 V
A	Version A
F	HiPerFET, MOSFET, n-channel
G	Low V _{CE(sat)} type, IGBT
K	CoolMOS
S	High speed type, IGBT
T	Standard MOSFET, n-channel
4	Version 4
6	Version CBI 1
7	Version CBI 2

Discrete IGBT and MOSFET

IXSK 50N60AU1	(Sample)
IX	IXYS
B	High voltage BIMOSFET
D	NPT-IGBT with SCSOA capability
E	CH-NTT IGBT
F	HiPerFET™ Power MOSFET
G	Fast IGBT
K	CoolMOS
L	IGBT with SCSOA capability
M	Standard power MOSFET
P	MOS and IGBT combination
S	IGBT with SCSOA capability
T	Standard power MOSFET
V	Standard IGBT
	Housing type
A	TO-263 (D ² Pack)
F	ISOPLUS-I4
H	TO-247
J	TO-268 (D ³ Pack with leads)
K	TO-264
M	TO-204 (TO-3)
N	SOT-227 B (miniBLOC)
P	TO-220
R	ISOPLUS 247 (TO-247 isolated, without mounting hole)
T	D ³ Pack, TO-268
U	TO-251 (D-Pack)
X	PLUS 247 (TO-247 without mounting hole)
50	Current rating, 50 = 50 A (MOSFET = value at T _C = 25°C; IGBT = value at T _C = 90°C)
N	N-channel type
P	P-channel type
60	Voltage class, 60 = 600 V
D1	With integrated HiPerFRED™ (anti-parallel)
Q	Low gate charge chip
U1	With integrated FRED (anti-parallel)
U2	With integrated FRED (boost configuration)
U3	With integrated FRED (buck configuration)
A	Version
	Standard MOSFET: A = prime RDS(on)
	IGBT: no letter = low V _{CE(sat)} (first generation, not for new designs)
	A = fast switching (first generation, not for new designs)
	B = high speed type (for medium speed circuits)
	C = light speed type (for high speed circuits)
S	SMD Version

Discrete BOD

IXBOD 1-42RD	(Sample)
IX	IXYS
BOD	Breakover Diode
1	Version
-06	Voltage class, 06 = 600 V
R	Printed circuit board mounting
D	BOD protection by a Fast Recovery Diode

TO-251, TO-252 Marking on product only

Nomenclature for type see corresponding nomenclature

<u>XX</u> <u>Y</u> <u>XXX</u> <u>AS</u>	(Sample)
XX	Current in Ampere
A	Gallium Arsenide
C	Thyristor
D	IGBT D
F	HiPerFET
G	IGBT G
I	FRED / Au diffused
P	FRED / Pt diffused
R	Rectifier
S	IGBT S
T	MOSFET
Y	Schottky
XXX	Blocking voltage x10 in Volt (EXCEPT Schottky) (060 = 600 V) Schottky: blocking voltage in Volt (008 = 8 V; 045 = 45 V; 130 = 130 V)
A	TO-251 single diode
AS	TO-252 single diode (D-Pack; SMD)
C	TO-251 two common cathode diodes
CS	TO-252 two common cathode diodes (D-Pack; SMD)

