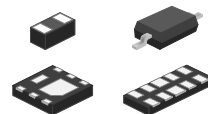


TVS Diode / Array

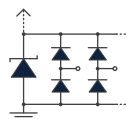
- UTC provides high speed TVS, high power protection, with compact package options.



Low-cap (max 0.5~1pF) TVS & TVS array for USB / high-speed bus

1-ch / 2-ch TVS	Configuration	package
UESD5V0U1B-L	Bi-directional <0.5pF	X3DFN0603-2
UESD5V0U1U	Uni-directional	X1DFN1006-2
UESD5V0V2U	Common-anode array	SOT-23

Part Number	Protect.
USB4S012	3-ch+Vcc
UESD4S009	4-ch+Vcc
UESD4CUSB30	4-ch



5V TVS and TVS array

Single TVS	Package
UESD5V0X1C50	SOD-323
UESD5V0X1C40	SOD-323
UESD5V0X1C30	SOD-323
ESD5V0L1B	SOD-523
UESD5V0L1B	SOD-323 DFN1006/0603
UESD5V0V1B	SOD-323/923 DFN1006/0603
UESD5V0U1B-L	X1DFN1006-2 X3DFN0603-2

TVS array	Configuration & feature
UESD5V0V2U	2-TVS low-cap 0.8pF
UESD5V0L2U	2-TVS common anode
UESD6V1N2U	2-TVS common anode
SOT05C	2-TVS common anode
UESD5V0UC500	2-ch Ppk 400W Ipk 47A (8/20μs)
UESD5V0V4U	4-TVS common anode
USMS05	4-TVS Ppk 350W (8/20μs)
UESD5V0L5U	5-TVS common anode
UZ5C056	5-TVS Ppk 150W (8/20μs)
ESD6V2S1B	2-TVS bi-directional 6.2V

3V~36V TVS

Type	12V	24V / 32V
Single TVS	UESD12VL1U	UESD24VL1U (24V)
	UESD12VN1U	UESD1LING* (24V)
	USD03W~USD36W, SMA3V~SMA36V	
TVS array	UESD12VL2U	UTVS2105 (24V)
	UESD12VL2U-A	UESD1105 (24V)
		UTVS3105 (32V)

Special I/O TVS

I/O port	Part Number
HDMI	PPHDMI2020
1284	URCZ1284-xx
VGA (ESD / EMI / buffer) solution	CCVGA7C5 CCVGA7C9 VGA7S019
Multi-channel	USP720 UZ18C6V8

Transient power absorption (10/1000μs) uni-/bi-direction single TVS

3000W	1500W	600W	400W
SMDJ	SMCJ	SMBJ P6SMB SMA6LXXA P6KE	SMAJ

Note: Please refer to UTC catalog for complete portfolio.

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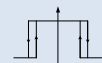
- Tel: +886-2-2999 5013 ext .218
- e-Mail : oversea@unisonic.com.tw



Hall Sensor IC

- UTC provides various Hall sensor device for magnetic sensing, ideal for whitegoods, energy meters, flow-meters, laptops, and motor applications

5V Omni-polar sensor switch

Part Number	Bop _{MAX} (Gauss)	Output type
UH8102A (active-high)	70	 Open-drain
UH8102B	70	
UH8103	75	
UH8104	60	
UHE4913	50	
UH81062	23	Push-pull / Pull-up / Open-drain
UH8108	110	Push-pull
UH8105	45	
UH8118	40	

28V Omni-polar sensor switch

Part Number	Bop _{MAX} (Gauss)	Output type
UHS351	135	Open-drain
SK8552 (active-high)	100	Pull-up
UHC288	85	

Uni-polar sensor switch

Part NO.	Vcc	Bop _{MAX} (Gauss)	Output type
UH8100	5.5V	60	Open-drain
UH8111	5.5V	45	Push-pull
SK1901	20V	100	Open-collector
U3144	24V	350	

Bi-polar sensor latch

Part NO.	Vcc	Sensing pole on top	Bop _{MAX} (Gauss)	Output type
UHC177	24V	South	40	Open-drain
UHC188	±24V	North	40	
UHC182	±32V	North	40	
USS30A	28V	North	110	Open-collector
USS40A	28V	North	110	
USS50A	28V	South	110	
UHS41	28V	North	70	
SK1816	20V	North	50	Pull-up
SK1816A	20V	North	50	
SK1826	24V	North	50	

Linear-output sensor

Type	Part Number
Linear (sensitivity 1.6~3mV/G)	SK8509 UHS39 UHS49 UH495

Complementary-output Hall sensor for DC motor

UHC479 UHC477 UHC211 UHC1377
UHC1477 UH255 UH447 UH457 319
UH477 UH211 H1277 UH288 UH210
UH276 UH277 UH378 UH266

Note: Please refer to UTC catalog for complete portfolio.

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IGBT

- ♦ UTC provides high-performance IGBT components for whitegoods, inverters, pumps, heating devices, solar devices, power circuit, and ignition applications

□ UTC IGBT nomenclature

UTG: Trench field-stop

UPG / UPGE: Planar type

UGV: Ignition IGBT

Current rating

e.g. 75 → $I_C = 75A$

Voltage rating (x10)

e.g. 65 → $V_{CEO} = 650V$

Switching speed

H: high-speed 10~60kHz

L: low-speed 5~40kHz

UTG 75 N 65 H N S 1

N-ch

t_{sc} (short-circuit) rating

N: normal

S: 3μs

L: 8μs

UTC version code

Internal free-wheeling diode

S: fast-recovery, $I_F = \text{rated } I_C$

D: fast-recovery, $I_F = \frac{1}{2} \text{ rated } I_C$

K: standard-recovery, $I_F = \text{rated } I_C$

J: standard-recovery, $I_F = \frac{1}{2} \text{ rated } I_C$

R: On-chip integrated (RC-IGBT)

C: SiC diode embedded

□ Trench structure field-stop IGBT

330V (PDP app.)	600 / 650V IGBT	1200V↑ IGBT	Standalone IGBT
UPGE80N33W	UTG6N60-S	UTG16N65-S	UTG12N120-S
UPGE85N33	UTG60N60	UTG30N65-S	UTG50N120-G2
UPGE120N33	UTG4N65-S	UTG70N65-S	UTG80N120-S
UPGE145N33	UTG8N65-S	UTG80N65-S	UTG30N135-G2
			UTG75N65ND-S
			UTG80N65ND-S
			UTG50N120ND-S
			UTG30N135ND-S

□ Ignition IGBT (380~450V, resistor internally biased)

Part Number	BVCES	IC	Package
UG15N41	380 V	15 A	TO-252 TO-263 TO-220
UGV20N40	440 V	20 A	TO-252 TO-262 TO-263 TO-220 TO-220F1 TO-220F2
UGV3040	400 V	21 A	TO-251 TO-252 TO-262 TO-263 TO-220 TO-220F

Note: Please refer to UTC catalog for complete portfolio.

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