

# TVS Wafers

## Transient Voltage Suppressors

### Ultra-Low Capacitance TVS(6inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*3)		Vrwm (V)	Vbr(V) @1mA			C(pF) 0V bias Typ	Metallization		Thickness	Remarks(*2)	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDT6ULC9P6V0P	0.34×0.34	122,473	1	12	5.0	6.00	-	-	0.5	Al-Si	Au	140um	UNDER DEVELOPMENT	ESD9L5.0ST

\*1) Depending on your packaging specifications, the maximum rating may not be met and/or the typical value may mismatch. We suggest that you please qualify our sample wafer before full production.

\*2) Specification for "Under Development" items may change without prior notice.

\*3) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

### Low Capacitance TVS Array(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*3)		Vrwm (V)	Vbr(V) @1mA/5mA			C(pF) 0V bias Max	Metallization		Thickness	Remarks(*2)	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDT5TDA1P6V0P	0.81×0.48	25,204	5	23	5.0	6.00	-	-	3.0 (*4)	Al-Si	Au	150um	UNDER DEVELOPMENT	Rclamp0504F

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\*3) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

\*4) SOT-23, I/O Pin to Gnd Pin

### Anode Common Dual TVS(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*2)		Vrwm (V)	Vbr(V) @1mA/5mA			C(pF) 0V bias Typ	Metallization		Thickness	Remarks	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDTRCP6V4P	0.40×0.40	68,782	8.5	11	5.0	6.40	6.80	7.20	40	AL	Au	180um		DF6A6.8FUT1
GDTRAP5V3P	0.94×0.63	18,394	18.5	16.2	3.00	5.30	5.60	5.90	170	AL	Au	180um		ESDA5V3L
GDTRAP6V1P	0.94×0.63	18,394	18.5	16.2	5.25	6.10	6.65	7.20	170	AL	Au	180um		ESAD6V1L
GDTRAP6V4P	0.94×0.63	18,394	18.5	16.2	5.20	6.40	6.80	7.20	170	AL	Au	180um		PESD5V2S2UT
GDTRMP6V1P	0.53×0.53	38,958	18.5	16.2	5.25	6.10	6.65	7.20	140	AL	Au	180um		ESAD6V1L Shrink from RAP6V1

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\*2) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

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### Anode Common Quad Array(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*3)		Vrwm (V)	Vbr(V) @1mA/5mA			C(pF) 0V bias Typ	Metallization		Thickness	Remarks(*2)	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDTRPP6VOP	0.28×0.28	140,490	2	12.5	5.0	6.00	7.10	8.00	8.5	AL	Au	100um	UNDER DEVELOPMENT	uClamp0502P
GDTRJP5V3P	0.36×0.36	84,926	4	13	3.0	5.30	5.60	5.90	14.5	Al-Si	Au	150um		NZQA5V6AXV5T1G
GDTRJP6V4P	0.36×0.36	84,926	3.3	13	4.3	6.47	6.80	7.14	12.5	Al-Si	Au	150um		NZQA6V8AXV5T1G
GDTRJP12VP	0.36×0.36	84,926	1.8	22.5	9.0	11.40	12.00	12.70	6.5	AL	Au	100um		NUP412VP5

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\*2) Specification for "Under Development" items may change without prior notice.

\*3) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

### Anode Common 5 Array(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*2)		Vrwm (V)	Vbr(V) @1mA/5mA			C(pF) 0V bias Typ	Metallization		Thickness	Remarks	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDTRHP6V1P	0.71×0.40	38,592	8	12.5	3.0	6.10	6.65	7.20	50	AL	Au	180um		ESDA6V1W5, SMF05C
GDTRKP6V3P	0.66×0.37	44,398	8	11.3	5.0	6.30	6.90	7.50	42	AL	Au	130um		NUP512X6T1G, MSMF05C, DMF05LCFLP

\*1) Depending on your packaging specifications, the maximum rating may not be met and/or the typical value may mismatch. We suggest that you please qualify our sample wafer before full production.

\*2) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

### Bi-Directional TVS(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*3)		Vrwm (V)	Vbr(V) @1mA			C(pF) 0V bias Typ	Metallization		Thickness	Remarks(*2)	Target Spec(*1)
			@lpp(A)	Max		Min	Typ	Max		Top Metal	Back Metal			
GDTRP5V0P	0.33×0.26	128,388	2.3	19	3.3	5.00	-	-	18	AL	Au	100um		
GDTRLP5V6P	0.35×0.35	89,912	1.5 (*4)	15	-	5.78	-	7.82	30	AL	Au	100um	UNDER DEVELOPMENT	RSB6.8S

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\*2) Specification for "Under Development" items may change without prior notice.

\*3) Package=SOT-23(front: Au wire 35um, back: Au eutectic)

\*4) @Tp=10/1000us

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### Single TVS(5inch Wafer)

Device	Chip Size (mm)	Quantity pcs/Wfr	Vc(V) @8/20us (*3)		Vrwm (V)	Vbr(V) @1mA/5mA			C(pF) 0V bias typ	Metallization		Thickness	Remarks(*2)	Target Spec(*1)
			@Ipp(A)	Max		Min	Typ	Max		Top metal	Back Metal			
GDT5ZT27M12VWP	0.17×0.17	374,272	-	-	9	10	12	14	14	AL	Ag	90um	UNDER DEVELOPMENT	
GDTRNP5V7P	0.225×0.225	217,960	7.5	11	4.0	5.70	6.20	6.70	35	AL	Au	100um	UNDER DEVELOPMENT	
GDTRDP5V0P	0.26×0.26	163,034	8.5	10.4	3.3	5.00	-	-	45	AL	Au	100um		ESD9X3.3ST5G
GDTRDP6V2P	0.26×0.26	163,034	7.5	12.3	5.0	6.20	-	-	40	AL	Au	100um		ESD9X5.0ST5G
GDTRFN4V0P	0.33×0.33	101,184	11	10.9	2.5	4.00	5.10	-	126	AL	Au	140um	UNDER DEVELOPMENT	ESD5Z2.5T1
GDTRFN5V0P	0.33×0.33	101,184	11.2	14.1	3.3	5.00	6.80	-	83	AL	Au	140um	UNDER DEVELOPMENT	ESD5Z3.3T1
GDTRFN6V2P	0.33×0.33	101,184	9.4	18.6	5.0	6.20	7.50	-	71	AL	Au	140um		ESD5Z5.0T1
GDTRFN6V8P	0.33×0.33	101,184	8.8	20.5	6.0	6.80	8.20	-	42	AL	Au	140um	UNDER DEVELOPMENT	ESD5Z6.0T1
GDTRFN7V5P	0.33×0.33	101,184	8.8	22.7	7.0	7.50	9.10	-	40	AL	Au	140um	UNDER DEVELOPMENT	ESD5Z7.0T1
GDTRQP6V1P	0.35×0.30	106,502	16	12.5	5.0	6.00	-	-	85	AL	Au	130um	UNDER DEVELOPMENT	uClamp0501p
GDTRGP6V0P	0.44×0.44	56,628	24	14.5	5.0	6.20	6.75	7.30	235	AL	Au	180um		SD05T1,SD05
GDTRGP12VP	0.44×0.44	56,628	15	25	12.0	13.30	-	-	90	AL	Au	180um	UNDER DEVELOPMENT	SD12T1,SD12

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