



USMS05

Preliminary

TVS

TVS DIODE ARRAY FOR ESD AND LATCH-UP PROTECTION

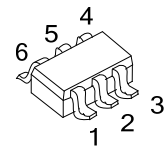
DESCRIPTION

The UTC **USMS05** is TVS diode array, it uses UTC's advanced technology to provide customers with low leakage current, low operating and clamping voltage, etc.

The UTC **USMS05** is suitable for ESD and latch-up protection.

FEATURES

- * 4 Protect I/O lines
- * Low leakage current (Max.=20 μ A @ $V_{RWM}=5V$, $T=25^{\circ}C$)
- * Low operating and clamping voltages



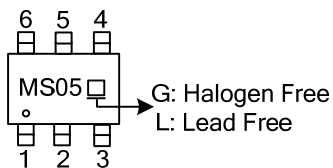
SOT-26
(SC-59-6)

ORDERING INFORMATION

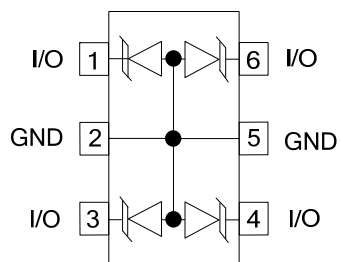
Ordering Number		Package	Packing
Lead Free	Halogen Free		
USMS05L-AG6-R	USMS05G-AG6-R	SOT-26	Tape Reel

USMS05L-AG6-R (1) Packing Type (2) Package Type (3) Halogen Free	(1) R: Tape Reel (2) AG6 : SOT-26 (3) L: Lead Free, G: Halogen Free
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MARKING



■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	I/O	Terminal of ESD 1
2	GND	Ground
3	I/O	Terminal of ESD2
4	I/O	Terminal of ESD 3
5	GND	Ground
6	I/O	Terminal of ESD 4

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
ESD Voltage (HBM Contact) (Note 2)	Air	25	kV
	Contact	20	kV
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PK}	350	W
Operating Temperature	T_J	-55~+125	°C
Storage Temperature	T_{STG}	-55~+150	°C

Note: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. IEC 61000-4-2.

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$			20	μA
Clamping Voltage	V_C	$I_{PP}=5A, t_p=8/20\mu s$			9.8	V
		$I_{PP}=24A, t_p=8/20\mu s$			14.5	V
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			24	A
Junction Capacitance	C_j	Between I/O Pins and Ground $V_R=0V, f=1MHz$		325	400	pF

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