



μClamp® 3603T

KEY FEATURES

- Industrial operating voltage: 36V
- 3-line protection array
- Low clamping voltage
- Ultra small package (1.7 x 1.0 x 0.4mm)
- High surge rating: 2A, 1.2 x 50μs

FEATURE BENEFITS

- Ideal for proximity sensor applications
- Can protect 3-wire proximity switch with one device
- Safeguard sensitive sensor ASICs
- Saves board space in space constrained applications
- Immunity to routine surge events

APPLICATIONS

- Two and Three Wire DC High-Side and Low-Side
- Proximity Switches
- Digital Sensor Input Protection
- Industrial Controls
- 24V - 36V DC Supply Protection
- Automotive Applications

PACKAGING

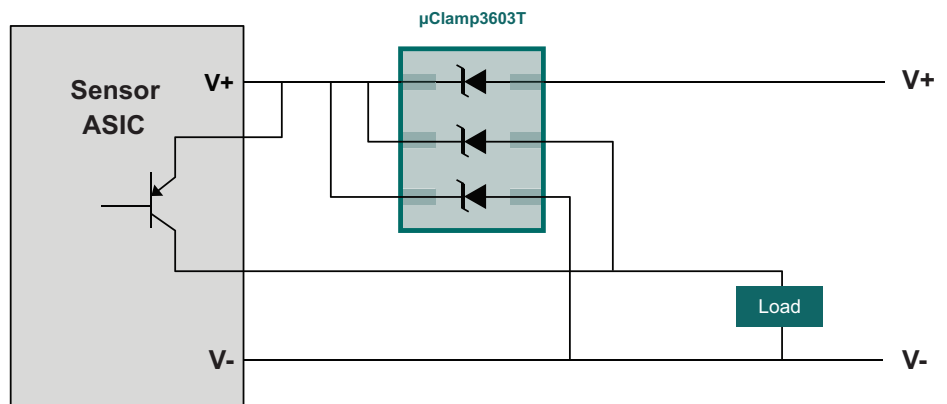
- SLP1710N6T



μClamp® 3603T

TVS DIODE ARRAY FOR PROXIMITY SWITCH PROTECTION

The μClamp®3603T is a high-surge transient voltage suppressor (TVS) optimized for protection of sensitive digital sensors used in proximity switches and industrial control applications. The μClamp3603T protects the components from over-voltages caused by Electro-Static Discharge (ESD), Electrical Fast Transients (EFT), and Tertiary Lightning.



PNP Inductive Proximity Sensor with μClamp3603T Protection

μClamp® 3603T - ABOLUTE MAXIMUM RATING

Maximum Rating	Symbol	Value	Units
Peak Pulse Power (tp = 8/20μs)	P_{pk}	140	Watts
Peak Pulse Power (tp = 8/20μs)	I_{pp}	2	A
Maximum Steady State Forward Current	I_F	200	mA
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±20 ±15	kV
Operating Temperature	T_J	-40 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				36	V
Reverse Breakdown Voltage	V_{BR}	$I_L = 1mA; T = -40°C \text{ to } 125°C$	37	42	55	V
Reverse Leakage Current	I_R	$V_{RWM} = 36V$	$T = 25°C$	0.01	1	μA
			$T = 125°C$	0.5	3	
Clamping Voltage	V_C	$I_{pp} = 2A, t_p = 1.2/50μs$		55	65	V
Forward Voltage Drop	V_F	$I_F = 200mA$			1.0	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$	$T = 25°C$	25	50	pF
			$T = 125°C$	50	100	

ORDERING INFORMATION

μClamp3603T.TCT		
Working Voltage	Qty Per Reel	Reel Size
36V	3,000	7 inches



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