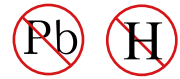


**TVS Diode Array for ESD and Latch-Up Protection****Features**

- Protects five I/O lines
- Low capacitance
- Working voltages : 5V
- Low leakage current
- Response Time is < 1 ns
- Low operating and clamping voltages
- Solid-state silicon avalanche technology
- Device Meets MSL 1 Requirements
- ROHS compliant

Main applications

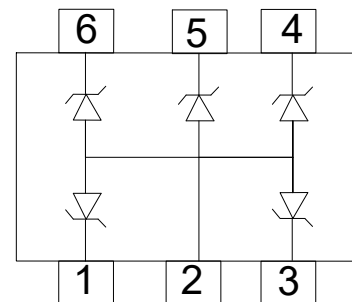
- Cellular Handsets and Accessories
- Cordless Phones
- Personal Digital Assistants (PDA's)
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- MP3 Players

Protection solution to meet

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

Ordering Information

Device	Marking	Qty per Reel	Reel Size
YSMF05C	F05/WF/6JC	3000	7 Inch

SOT-363**PIN CONFIGURATION**

YSMF05C

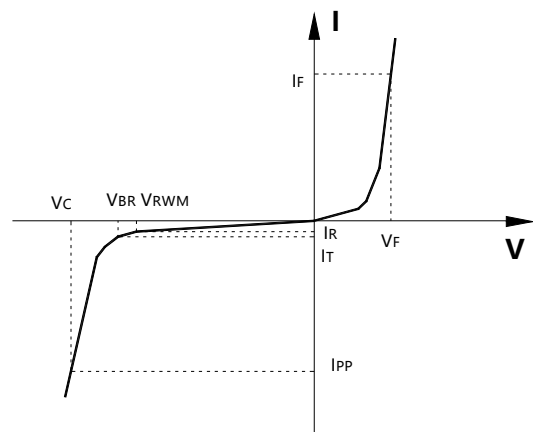
Maximum ratings (Tamb=25°C Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P _{PPP}	50	Watts
Peak Pulse Current(tp=8/20μs waveform)	I _{PP}	2.5	A
ESD Rating per IEC61000-4-2:		8	KV
Contact Air		15	
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

Electrical characteristics (Tamb=25°C Unless Otherwise Specified)

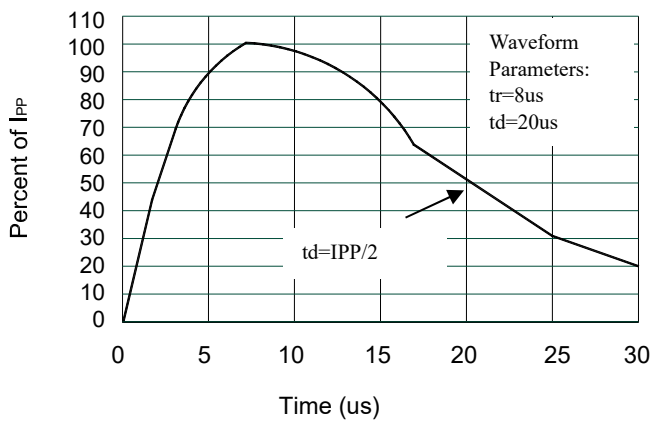
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
V _{RWM}	Reverse Working Voltage				5.0	V
V _{BR}	Reverse Breakdown Voltage	IT = 1mA,	6.0			V
I _R	Reverse Leakage Current	V _{RWM} = 5 V			100	nA
V _F	Diode Forward Voltage	IF = 15mA		0.85	1.2	V
V _C	Clamping Voltage	I _{PP} =1A,tp=8/20μs			10	V
		I _{PP} =2.5A,tp=8/20μs			13	V
I _{PP}	Peak Pulse Current	tp =8/20μs			2.5	A
C _J	Junction Capacitance	V _R = 0 V , f = 1 M H z		15	20	pF

Symbol	Parameter
V_{RWM}	Working Peak Reverse Voltage
V_{BR}	Breakdown Voltage @ I_T
V_C	Clamping Voltage @ I_{PP}
I_T	Test Current
I_{RM}	Leakage current at V_{RWM}
I_{PP}	Peak pulse current
C_O	Off-state Capacitance
C_J	Junction Capacitance

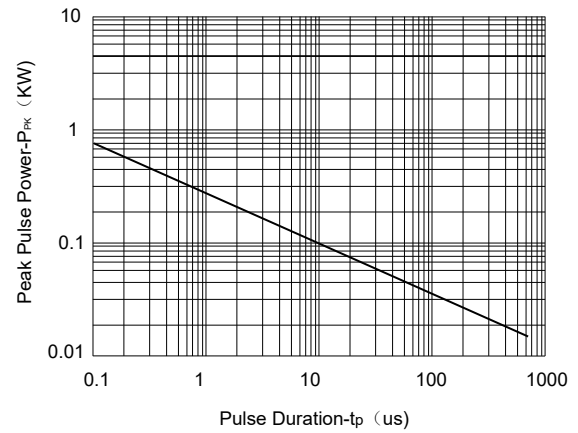


DEVICE CHARACTERISTICS

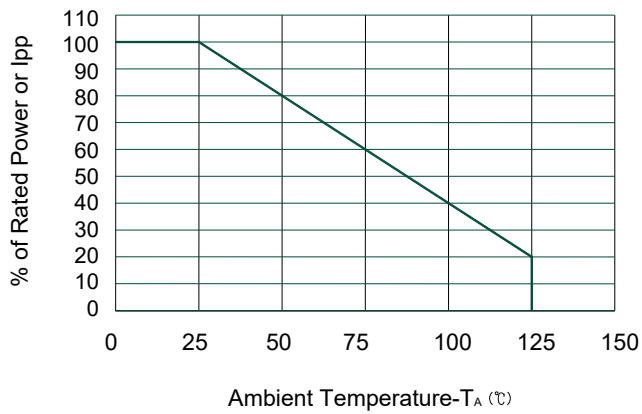
YSMF05C



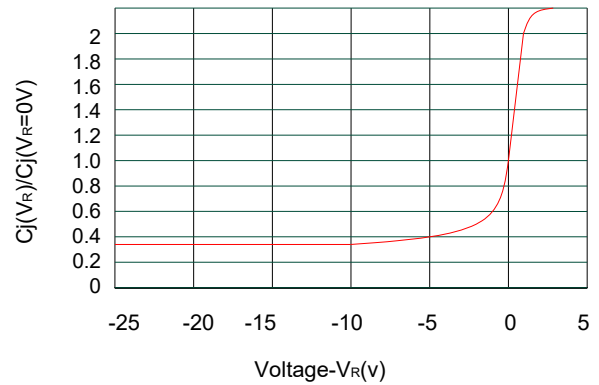
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve

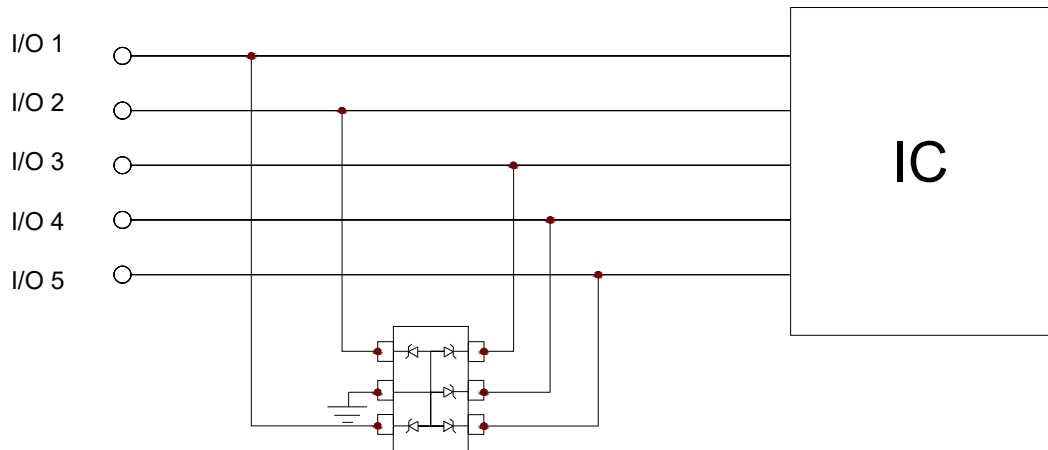


Junction Capacitance vs. Reverse Voltage

DEVICE CHARACTERISTICS

YSMF05C

Typical applications



Device Connection for Protection of Five Data Lines

The YSMF05C is designed to protect up to five unidirectional data lines. The device is connected as follows:

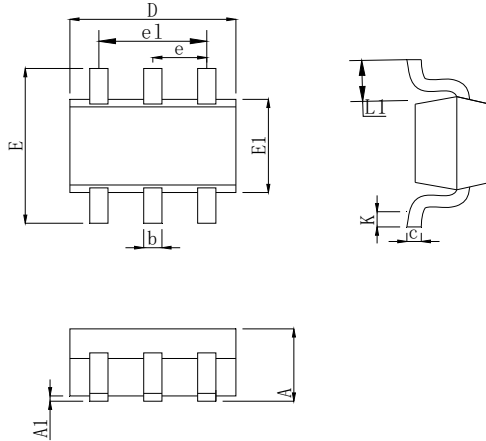
Unidirectional protection of five I/O lines is achieved by connecting pins 1, 3, 4, 5 and 6 to the data lines. Pin 2 is connected to ground. The ground connection should be made directly to the ground plane for best results. The path length is kept as short as possible to reduce the effects of parasitic inductance in the board traces.

PACKAGE OUTLINE & DIMENSIONS

YSMF05C

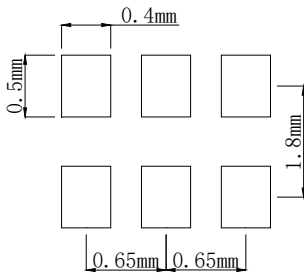
Mechanical Data

- Case:SOT-363
- Case Material: Molded Plastic. UL Flammability

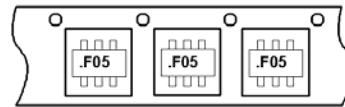


DIM	Millimeters	
	Min	Max
A	0.9	1.1
A1	0.0	0.1
b	0.15	0.35
c	0.08	0.25
D	2.00	2.20
e	0.65BSC	
e1	1.30TYP	
E	2.00	2.45
E1	1.15	1.35
K	0.15	0.4
L1	0.525REF	

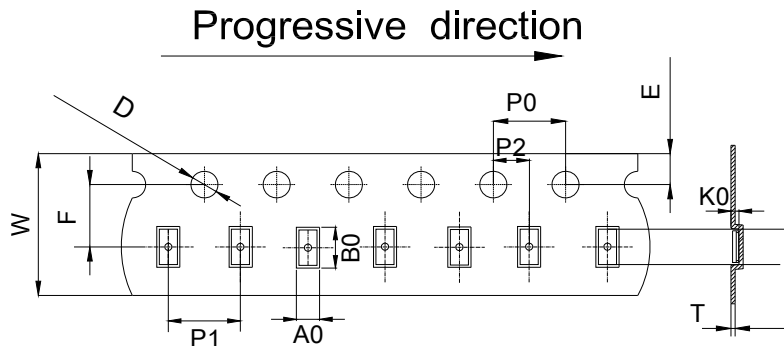
Recommended Pad outline



Device Orientation in Tape



SOT-363 Reel Dim



PACKAGE	W	E	F	P0	D	P2	P1	T	A0	B0	K0
SOT-363	8mm ±0.1	1.75mm ±0.1	3.5mm ±0.1	4mm ±0.1	1.5mm ±0.1	2mm ±0.1	4mm ±0.1	0.2mm ±0.05	2.3mm ±0.1	2.55mm ±0.1	1.2mm ±0.1