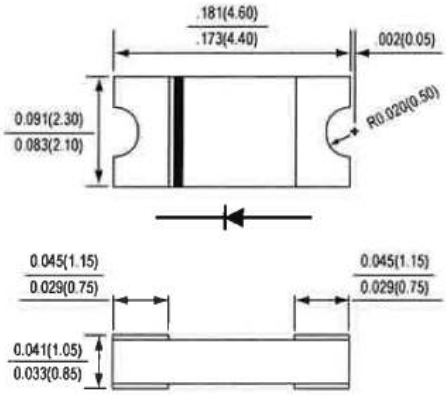
TCD6F5.0AH

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Stand-off Voltage - 5 Volts *Peak Pulse Power - 600 Watts*

PATENTED

2010-S



*Dimensions in inches and (millimeters)

SuperChip™

FEATURES

- Halogen-free type
- Lead free product
- Leadless chip form , no lead damage
- Lead-free solder joint , no wire bond & lead frame
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- High temperature soldering: 260°C/10 seconds at terminals

MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled
Terminals : Pure Tin plated (Lead-Free),
solderable per MIL-STD-750, Method 2026.
Polarity : Cathode Band, Laser marking
Standard Packaging : 12mm tape (EIA-481)
Marking : Cathode Band, Laser marking

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000uS waveform (Note 1, 2, FIG.1)	P_{PPM}	600	Watts
Peak Pulse Current on 10/1000uS waveform (Note 1,FIG.3)	I_{PPM}	65.2	Amps
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note 2, 3)	I_{FSM}	60	Amps
Operating junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150	°C

NOTES : (1) Non-repetitive current pulse , per Fig. 3 and derated above T_A= 25°C per Fig. 2 .
(2) Mounted on 5.0mm² copper pads to each terminal.
(3) 8.3ms single half sine-wave , or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

600 WATTS Surface Mount TVS 2010 (Tamb = 25℃)

PART NUMBER	V_{RWM} (V)	V_{BR} @ I_T			I_R @ V_{RWM}	Vc @ Ipp	
		MIN. (V)	MAX. (V)	I_T (mA)	(uA)	MAX. (V)	(A)
TCD6F5.0AH	5.0	6.40	7.00	10	800	9.2	65.2

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SURGE

RATINGS AND CHARACTERISTIC CURVES OF TCD6F5.0AH

FIG.1- PEAK PULSE POWER RATING CURVE

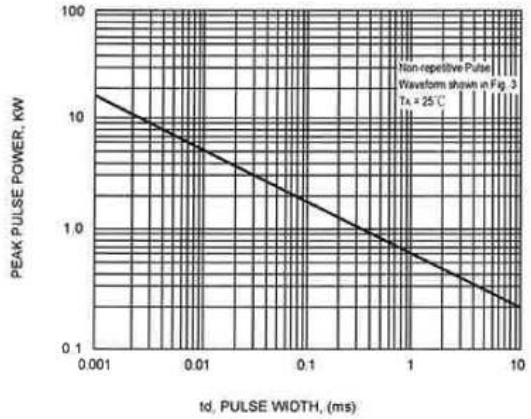


FIG.2- DERATING CURVE

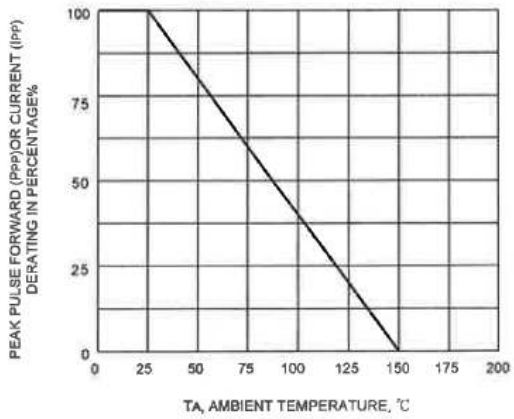


FIG.3- PULSE WAVEFORM

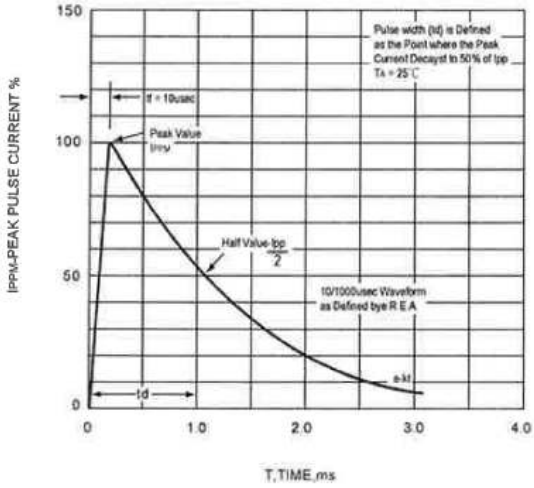


FIG 4- TYPICAL JUNCTION CAPACITANCE

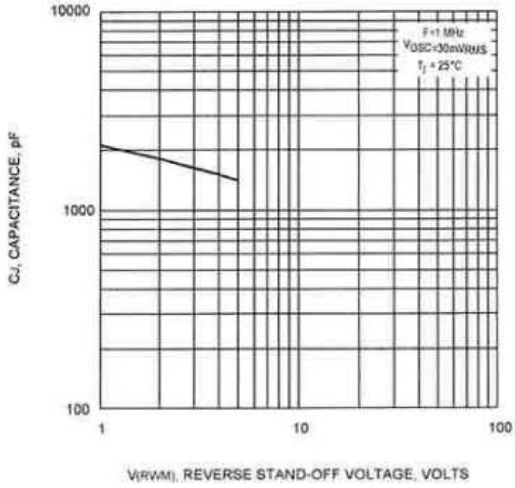
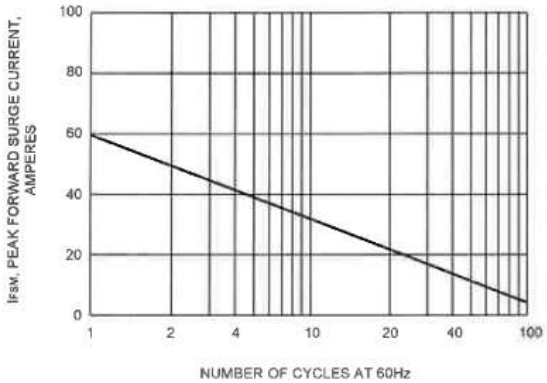


FIG.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



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