

10/100 BASE-T SMT TRANSFORMERS

MODEL NO. : HA-193(Bottom epoxy)

FEATURES:

RoHS Compliant

RoHS peak solder rating 260°C / 3~5 Sec

Do not use material and use that the prohibition that SS-00259 stipulates

Designed to meet IR requirement

Operating temp. : -40°C ~ +85°C

Specifications @ 25°C

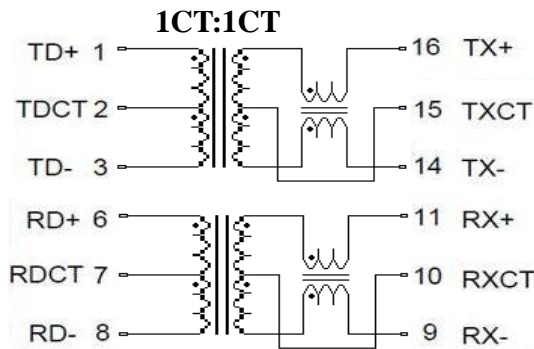
DCR(14-16,9-11) : 1.2Ω Max.

OCL : 350 uH Min @100kHz ,100mv / 8mA

MSL = 2

Part Number	Turns Ratio (±5%)		Insertion Loss (dB MAX)	Return Loss (dB MIN)			Common Mode Rejection (dB MIN.)			Cross Talk (dB MIN)		HIPOT (VAC)
	TX	RX		1~60 MHz	60~100 MHz	30 MHz	50 MHz	100 MHz	1~60 MHz	60~100 MHz		
HA-193	TX	RX	0.1~125 MHz	1~60 MHz	60~100 MHz	30 MHz	50 MHz	100 MHz	1~60 MHz	60~100 MHz	1500	
	ICT:1CT	ICT:1CT	-1.1	-16 ~ -14	-14 ~ -10	-42	-37	-33	-40	-38		

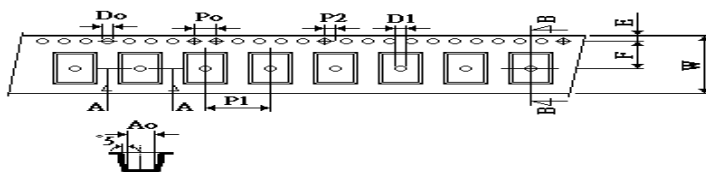
SCHEMATICS:



1CT:1CT

PIN 4, 5, 12, 13: NC PIN

Packing :



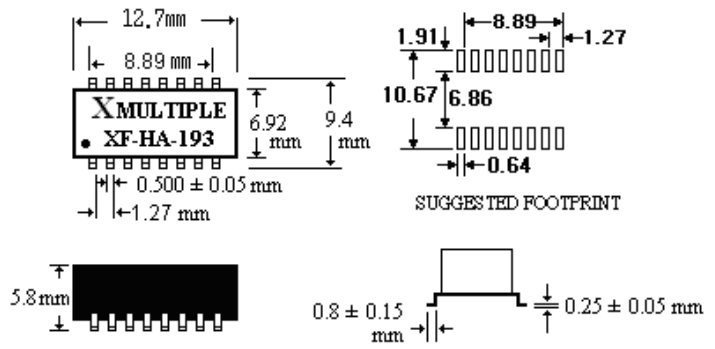
A-A SECTION

DIMENSION	W	P1	PO	E	F	AO	BO	Aot
SPEC.	24.0	16.0	4.0	1.75	11.5	10.0	13.2	0.08
	+/- 0.30	0.10	0.10	0.10	0.10	0.10	0.10	(MIN)
DIMENSION	KO	P2	Do	D1	10Po	T	K1	Bot
SPEC.	6.80	2.0	1.55	1.5	40.0	0.40	6.15	0.08
	+/- 0.10	0.10	0.05	(MIN)	0.20	0.10	0.10	(MIN)

Tape & reel.....600/reel
Tube.....39/tub

DIMENSION: mm

TOLERANCE: ±0.25



MODEL NO. : HA-193

Solder Reflow profile for Lead-Free packages.

Package Peak Reflow Temperatures

Classification Reflow Profiles

Profile Feature	Lead-Free Assembly	
Average ramp-up rate(T_L to T_P)	3°C / Second Max.	
Preheat		
Temperature Min.(T_s min.)	150 °C	
Temperature Max.(T_s max.)	200 °C	
Time (min to max) (t_s)	60-180 sec	
T_s max. to T_L Ramp-up Rate	3°C / Second Max.	
Time maintained above Temperature (T_L) Time (t_L)	217 °C 60-150 sec	
Peak Temperature (T_p)	260 +0 / -5 °C	250 +0 / -5 °C
Time within 5 °C of actual peak Temp.	3 to 5 Sec	20 to 40 Sec
Ramp-down	6°C / Second Max.	
Time 25 °C to Peak Temperature	8 minutes Max.	

Profile

