

10A 300V 30ns
FRD Type TCU10A30

OUTLINE DRAWING

構造 : 拡散型シリコンダイオード (FRD)

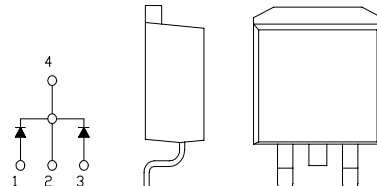
Diffusion type Silicon diode

Axial Lead Type

用途 : 力率改善用コンバータ、チョッパの高周波整流用

For Power Factor Improvement,

High frequency rectification


最大定格 MAXIMUM RATINGS ($T_a = 25$: unless otherwise specified)

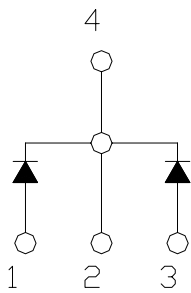
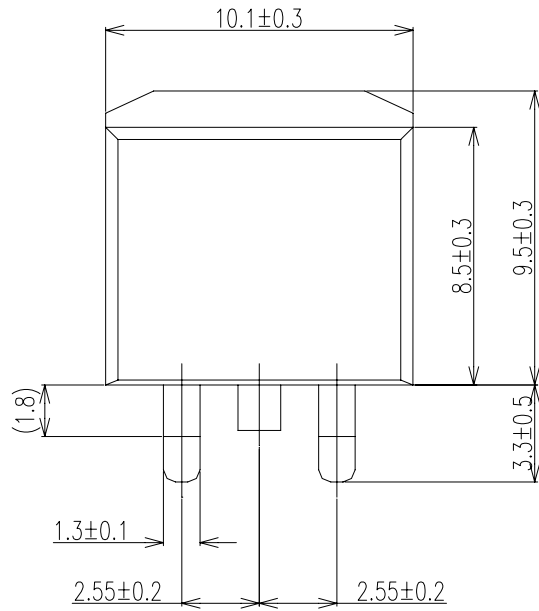
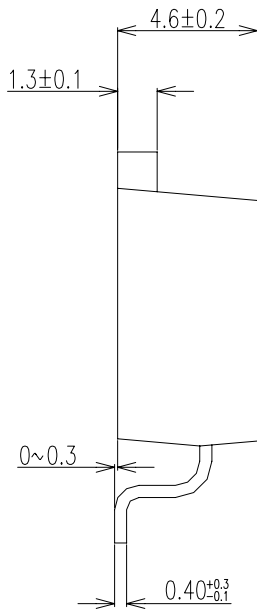
Approx Net Weight: 1.4g

Item	Symbol	Condition	Max. Rated value	Unit
くり返しピーク逆電圧 Repetitive peak reverse voltage	V_{RRM}		300	V
平均整流電流 Average rectified forward current	I_O	50Hz 正弦全波, 抵抗負荷 $T_c = 109^\circ\text{C}$ 50Hz full sine wave, Resistance load	10	A
実効順電流 R.M.S. forward current	$I_{F(RMS)}$		11.1	A
サージ順電流 Surge forward current	I_{FSM}	50Hz 正弦全波 1 サイクル 非くり返し 50Hz full sine wave 1 cycle, non-repetitive	100	A
動作接合温度範囲 Operating junction temperature range	T_{jw}		- 40 ~ + 150	
保存温度範囲 Storage temperature range	T_{stg}		- 40 ~ + 150	

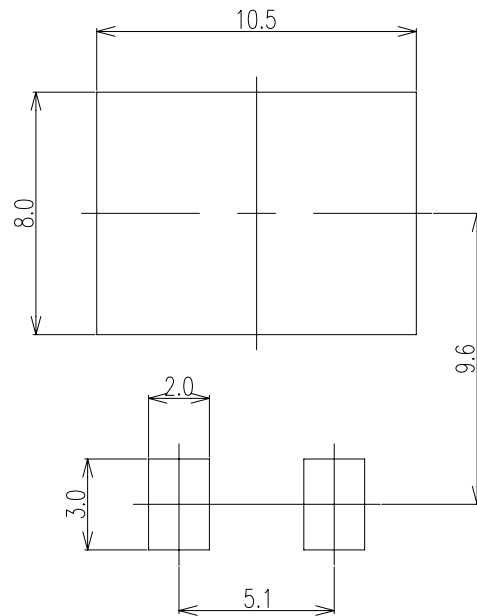
電氣的・熱的特性 ELECTRICAL / THERMAL CHARACTERISTICS

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
ピーク逆電流 Peak reverse current	I_{RM}	$V_{RM} = V_{RRM}$ $T_j = 25$ 1 素子あたり per diode	-	-	25	μA
ピーク順電圧 Peak forward voltage	V_{FM}	$I_{FM} = 5\text{A}$ $T_j = 25$ 1 素子あたり per diode	-	1.12	1.30	V
逆回復時間 Reverse recovery time	t_{rr}	$I_{FM} = 5\text{A}$ $T_j = 25$ - $di/dt = 50\text{A}/\mu\text{s}$	-	19	30	ns
熱抵抗 Thermal resistance	$R_{th(j-c)}$	接合部・ケース間 Junction to case	-	-	3	/W

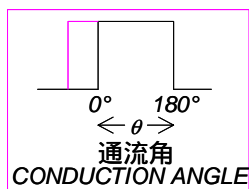
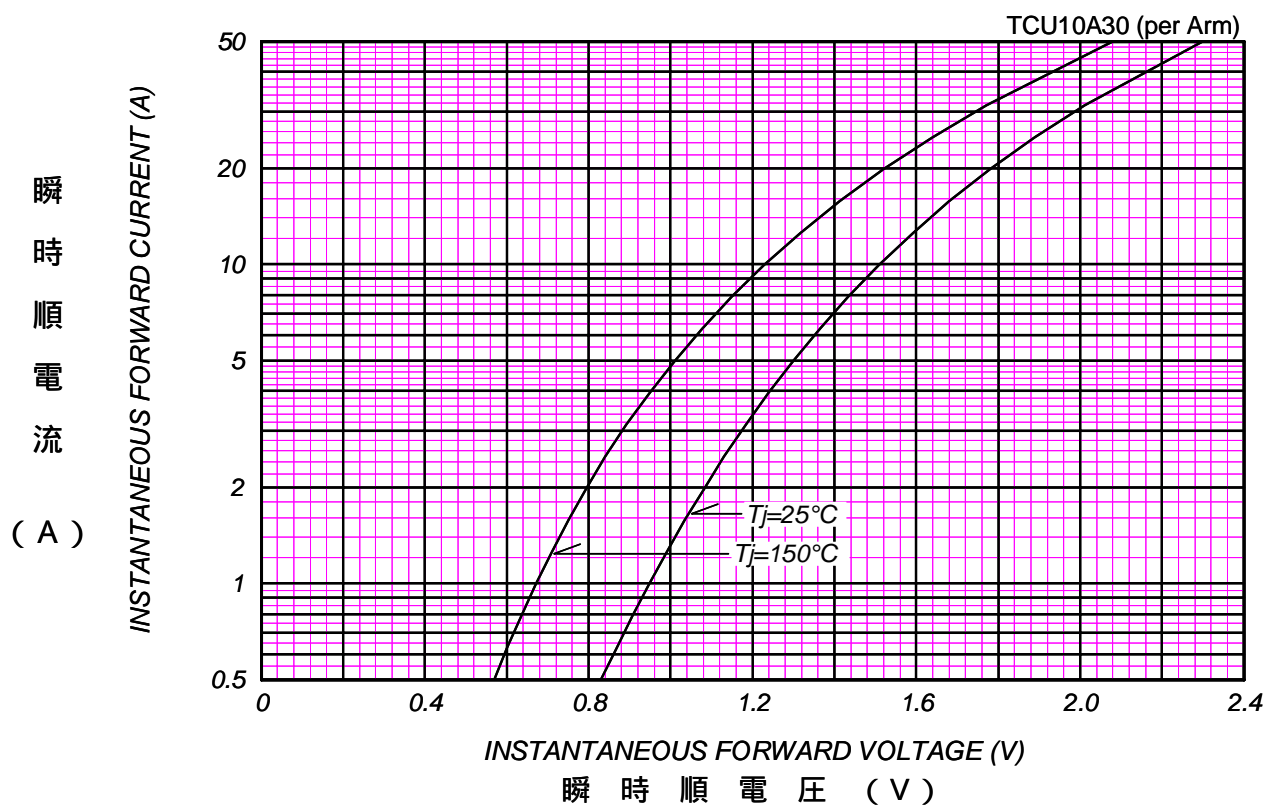
TCU_外形図 (mm)



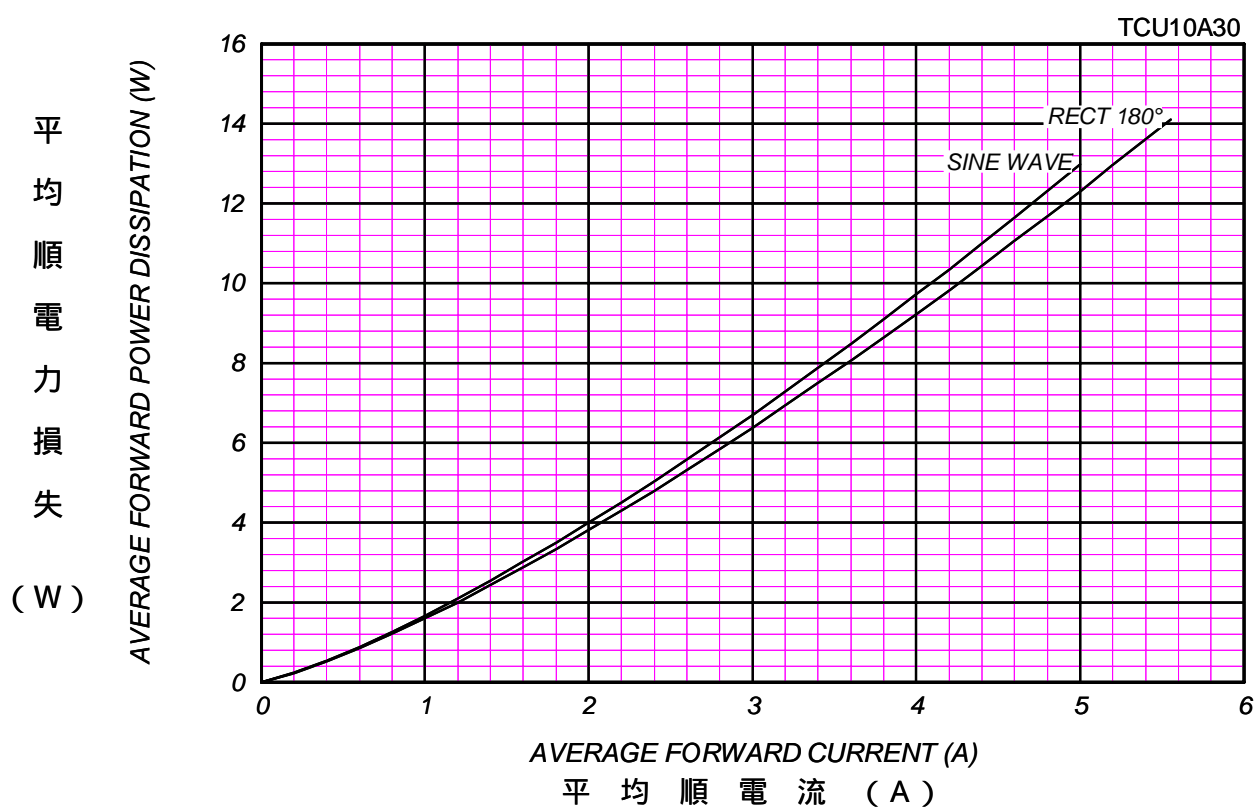
SOLDERING PAD

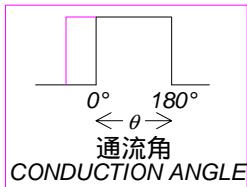


順電压特性
FORWARD CURRENT VS. VOLTAGE

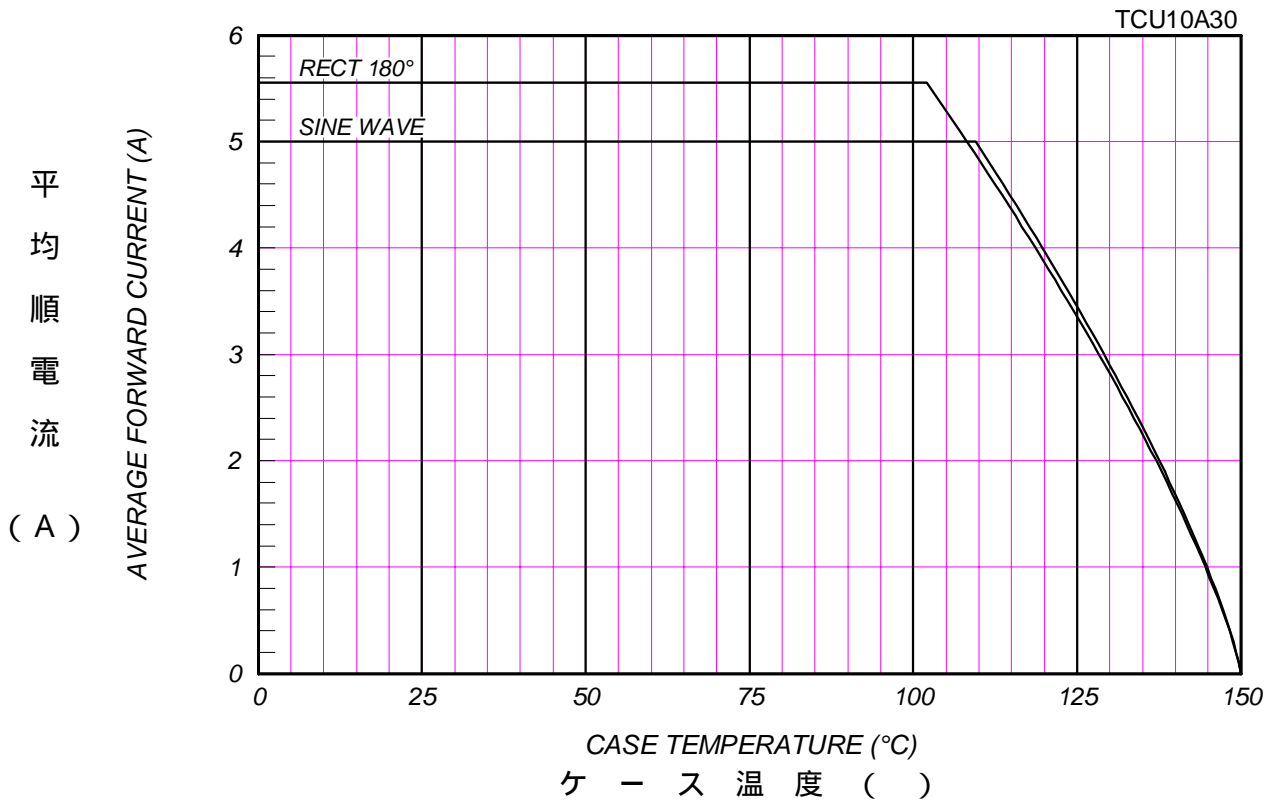


平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION





平均順電流 - ケース温度定格
 AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



サージ順電流定格
 SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, No Load

