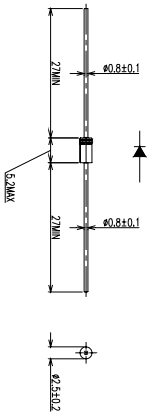
1A Avg. 400 Volts FRED 10DRA40

■最大定格 Maximum Ratings

Item	Symbol	Conditions			Unit
くり返しピーク逆電圧 Repetitive Peak Reverse Voltage	V_{RRM}	400			V
平均整流電流 Average Rectified Forward Current	I_O	50Hz、正弦半波通電抵抗負荷 50Hz Half Sine Wave Resistive Load	Ta＝58 ℃*1	1.0	A
			Ta＝35 ℃*2	1.0	A
実効順電流 R.M.S. Forward Current	$I_{F(RMS)}$	1.57			A
サージ順電流 Surge Forward Current	I_{FSM}	35 50Hz正弦半波，1サイクル，非くり返し 50Hz Half Sine Wave,1cycle, Non-repetitive			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			℃

■OUTLINE DRAWING(mm)



■APPROX. NET WEIGHT:0.32g

■電気的・熱的特性 Electrical/Thermal Characteristics

Item	Symbol	Conditions		Min.	Typ.	Max.	Unit
ピーク逆電流 Peak Reverse Current	I_{RM}	T_j=25℃, V_{RM}=V_{RRM}		−	−	10	μA
ピーク順電圧 Peak Forward Voltage	V_{FM}	T_j=25℃, I_{FM}=1A		−	−	1.13	V
逆回復時間 Reverse Recovery Time	trr	I_{FM}=1A, -di/dt=50 A/μs, T_j=25℃		−	−	120	ns
熱抵抗 Thermal Resistance	$R_{th(j-a)}$	接合部・周囲間 Junction to Ambient	プリント基板実装*1	−	−	81	℃/W
			単体フィン無し*2	−	−	115	℃/W

*1：プリント基板実装 / P.C. Board mounted (L=8mm,Print Land=10×10,Both Sides)
*2：単体フィン無し / Without Fin or P.C. Board mounted

■定格・特性曲線

FIG.1
順電圧特性
FORWARD CURRENT VS. VOLTAGE

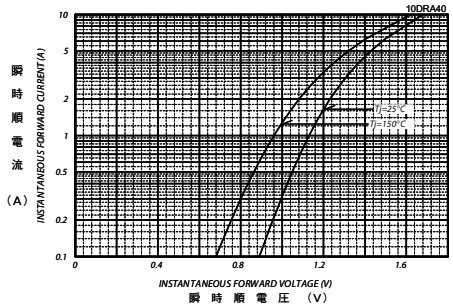


FIG.2
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION

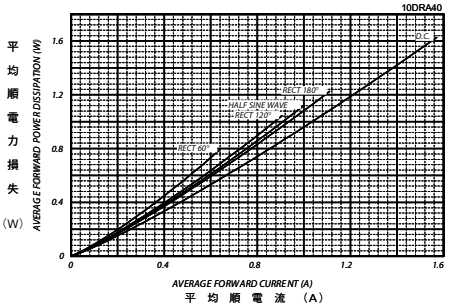


FIG.3
平均順電流－周囲温度定格
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE
P.C. Board mounted (L=8mm,Print Land=10×10mm,Both Sides)

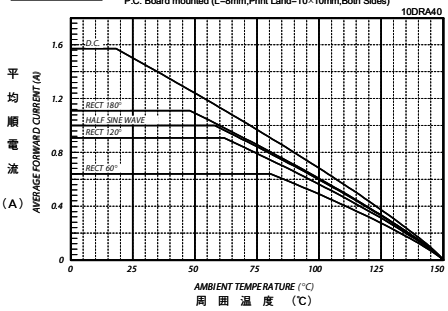


FIG.4
平均順電流－周囲温度定格
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE
Without Fin or P.C. Board

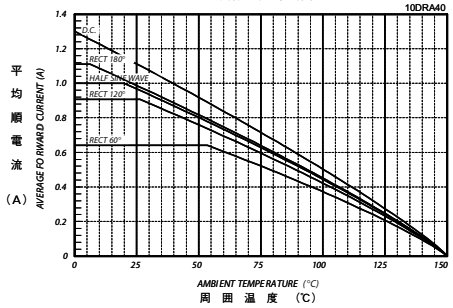


FIG.5
サージ順電流定格
SURGE CURRENT RATINGS
f=50Hz,Harf Sine Wave,Non-Repetitive,No Load