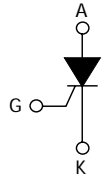
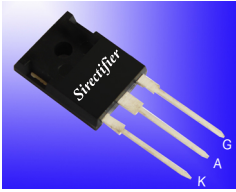
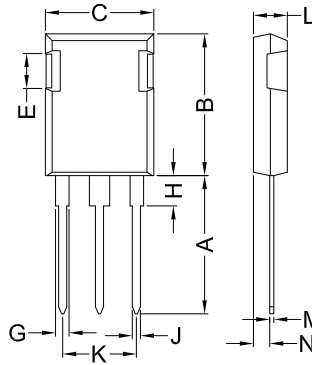


STYN8110 thru STYN22110

Thyristor Discretes (SCRs)



Dimensions TO-247P



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	19.81	20.32	0.780	0.800
B	20.80	21.46	0.819	0.845
C	15.75	16.26	0.610	0.640
E	4.32	5.49	0.170	0.216
G	1.65	2.13	0.065	0.084
H	-	4.5	-	0.177
J	1.0	1.4	0.040	0.055
K	10.8	11.0	0.426	0.433
L	4.7	5.3	0.185	0.209
M	0.4	0.8	0.016	0.031
N	1.5	2.49	0.087	0.102

K=Cathode, A=Anode, G=Gate

	VRRM V	VRSM V
STYN8110	800	900
STYN10110	1000	1100
STYN12110	1200	1300
STYN16110	1600	1700
STYN18110	1800	1900
STYN20110	2000	2100
STYN22110	2200	2300

Symbol	Test Conditions	Maximum Ratings	Unit
I_{TRMS} I_{TAVM}	$T_{VJ}=T_{VJM}$ $T_C=85^{\circ}C$; 180° sine	110 70	A
I_{TSM}	$T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine	720 780	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine	610 660	
i^2t	$T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine	2590 2530	A ² s
	$T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1860 1810	
$(di/dt)_{cr}$	$T_{VJ}=T_{VJM}$ f=50Hz, $t_p=200\mu s$ $V_D=2/3V_{DRM}$ $I_G=0.3A$ $di_G/dt=0.3A/\mu s$ repetitive, $I_T=110A$	150	A/ μs
	non repetitive, $I_T=I_{TAVM}$	500	
$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM}$; $R_{GK}=\infty$; method 1 (linear voltage rise) $V_{DR}=2/3V_{DRM}$	1000	V/ μs
P_{GM}	$T_{VJ}=T_{VJM}$ $I_T=I_{TAVM}$ $t_p=30\mu s$	10	W
	$t_p=300\mu s$	5	
P_{GAV}		0.5	W
V_{RGM}		10	V
T_{VJ} T_{VJM} T_{stg}		-40...+140	°C
		140	
		-40...+125	
M_d F_c	Mounting torque (M3)	0.8...1.2	Nm
	Mounting force with clip	20...120	N
Weight	typical	6	g



STYN8110 thru STYN22110

Thyristor Discretes (SCRs)

Symbol	Test Conditions	Characteristic Values		Unit
		STYN8110-16110	STYN18110-22110	
I_R, I_D	$T_{VJ}=T_{VJM}; V_R=V_{RRM}; V_D=V_{DRM}$	5		mA
V_T	$I_T=110A; T_{VJ}=25^{\circ}C$	1.60	1.90	V
V_{TO}	For power-loss calculations only ($T_{VJ}=125^{\circ}C$)	0.90		V
r_T		6.40		m Ω
V_{GT}	$V_D=6V; T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	1.5 1.6		V
I_{GT}	$V_D=6V; T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	100 200		mA
V_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	0.2		V
I_{GD}		10		mA
I_L	$T_{VJ}=25^{\circ}C; t_p=10\mu s;$ $I_G=0.3A; di_G/dt=0.3A/\mu s$	450		mA
I_H	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$	100		mA
t_{gd}	$T_{VJ}=25^{\circ}C; V_D=1/2V_{DRM}$ $I_G=0.3A; di_G/dt=0.3A/\mu s$	2		us
R_{thJC}	DC current	0.20		K/W
R_{thJH}	DC current	typ.	0.25	K/W
a	Max. acceleration, 50 Hz	50		m/s ²

