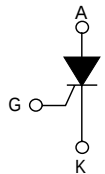
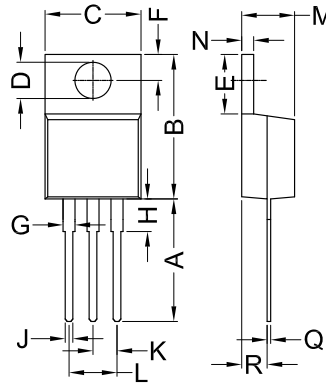


STYN210(S) thru STYN1010(S)

Thyristor Discretes(SCRs)

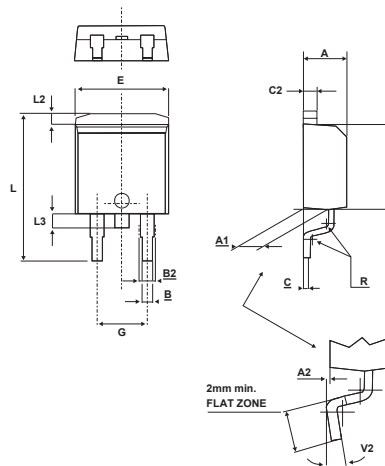
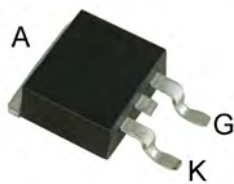


Dimensions TO-220AB



REF.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	12.70	13.97	0.500	0.550
B	14.73	16.00	0.580	0.630
C	9.91	10.66	0.390	0.420
D	3.54	4.08	0.139	0.161
E	5.85	6.85	0.230	0.270
F	2.54	3.18	0.100	0.125
G	1.15	1.65	0.045	0.065
H	2.79	5.84	0.110	0.230
J	0.64	1.01	0.025	0.040
K	2.54	BSC	0.100	BSC
L	5.08	BSC	0.200	BSC
M	4.32	4.82	0.170	0.190
N	1.14	1.39	0.045	0.055
Q	0.35	0.56	0.014	0.022
R	2.29	2.79	0.090	0.110

Dimensions TO-263(D²PAK)



REF.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.30		4.60	0.169		0.181
A1	2.49		2.69	0.098		0.106
A2	0.03		0.23	0.001		0.009
B	0.70		0.93	0.027		0.037
B2	1.25	1.40		0.048	0.055	
C	0.45		0.60	0.017		0.024
C2	1.21		1.36	0.047		0.054
D	8.95		9.35	0.352		0.368
E	10.00		10.28	0.393		0.405
G	4.88		5.28	0.192		0.208
L	15.00		15.85	0.590		0.624
L2	1.27		1.40	0.050		0.055
L3	1.40		1.75	0.055		0.069
R		0.40			0.016	
V2	0°		8°	0°		8°

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter				Value		Unit	
I _{T(RMS)}	RMS on-state current (180° conduction angle)		T _c = 100°C		10		A	
I _{T(AV)}	Average on-state current (180° conduction angle)		T _c = 100°C		6.4		A	
I _{TSM}	Non repetitive surge peak on-state current		t _p = 8.3 ms		105		A	
			t _p = 10 ms		100			
I ² _t	I ² _t Value		t _p = 10 ms		50		A ² s	
di/dt	Critical rate of rise of on-state current Gate supply:I _G = 100mA dI _G /dt = 1A/μs				50		A/μs	
T _{stg} T _j	Storage junction temperature range Operating junction temperature range				- 40 to + 150 - 40 to + 125		°C	
TI	Maximum lead soldering temperature during 10s at 4.5mm from case				260		°C	
		STYN						
		210	410	610	810	1010		
V _{DRM} V _{RRM}	Repetitive peak off-state voltage T _j = 125°C		200	400	600	800	1000	V

STYN210(S) thru STYN1010(S)

Thyristor Discretes(SCRs)

ELECTRICAL CHARACTERISTICS (T_j = 25°C, unless otherwise specified)

■ STANDARD

Symbol	Test Conditions				Value	Unit
I _{GT}	V _D = 12 V R _L = 33 W	T _j = 25°C	MAX.		15	mA
V _{GT}		T _j = 25°C	MAX.		1.5	V
V _{GD}	V _D = V _{DRM} R _L = 3.3 kW	T _j = 110°C	MIN.		0.2	V
tgt	V _D = V _{DRM} I _G = 40mA dI _G /dt = 0.5 A/μs	T _j = 25°C	TYP		2	μs
I _H	I _T = 100 mA Gate open	T _j = 25°C	MAX.		30	mA
I _L	I _G = 1.2 I _{GT}	T _j = 25°C	TYP		50	mA
dV/dt	V _D = 67 % V _{DRM} Gate open μs	T _j = 110°C	MIN.		200	V/μs
V _{TM}	I _{TM} = 20 A tp = 380 μs	T _j = 25°C	MAX.		1.6	V
tq	V _D = 67 % V _{DRM} I _{TM} =20A V _R =25V dI _{TM} /dt=30 A/μs dV _D /dt=50V /μs	T _j = 110°C	TYP		70	μs
I _{DRM}	V _{DRM} rated	T _j = 25°C	MAX.		0.01	mA
I _{RRM}	V _{RRM} rated	T _j = 110°C			2	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th(j-c)}	Junction to case (DC)		1.90	°C/W
R _{th(j-a)}	Junction to ambient (DC)	TO-220AB	45	°C/W
		S = 1.0 cm ² TO-263	60	

S= copper surface under tab

PRODUCT SELECTOR

Part Number	Voltage (xxx)	Sensitivity	Package
STYNX10S	200~~1000	15 mA	TO-263
STYNX10	200~~1000	15 mA	TO-220AB

OTHER INFORMATION

Part Number	Marking	Weight	Base Quantity	Packing mode
STYNX10S	STYNX10S	1.50 g	50	Tube
STYNX10	STYNX10	1.90 g	50	Tube

Note: x = voltage

