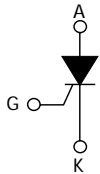
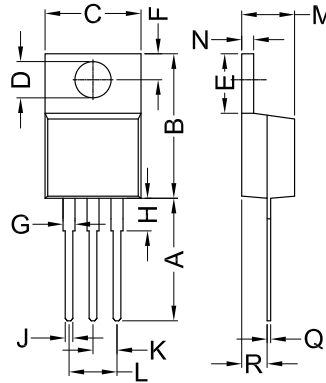


STYN216(S) thru STYN1016(S)

Thyristor Discretes(SCRs)

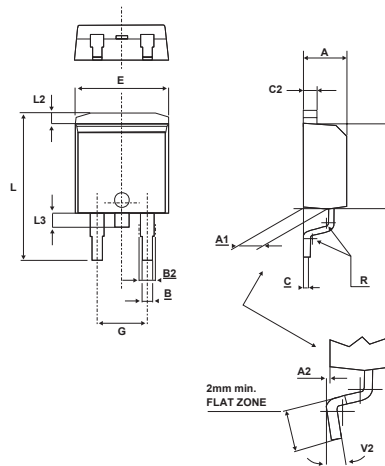
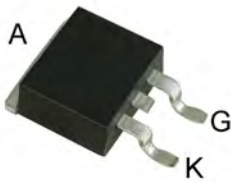


Dimensions TO-220AB



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)		$T_c = 110^\circ\text{C}$ 16	A
$I_{T(AV)}$	Average on-state current (180° conduction angle)		$T_c = 110^\circ\text{C}$ 10	A
I_{TSM}	Non repetitive surge peak on-state current	$t_p = 8.3 \text{ ms}$	$T_j = 25^\circ\text{C}$ 200	A
		$t_p = 10 \text{ ms}$		
$I^2 t$	$I^2 t$ Value for fusing	$t_p = 10 \text{ ms}$	$T_j = 25^\circ\text{C}$ 180	A ² s
di/dt	Critical rate of rise of on-state current $I_G = 2 \times I_{GT}$, $t_r \leq 100 \text{ ns}$	$F = 60 \text{ Hz}$	$T_j = 125^\circ\text{C}$ 50	A/ μs
I_{GM}	Peak gate current	$t_p = 20 \mu\text{s}$	$T_j = 125^\circ\text{C}$ 4	A
$P_{G(AV)}$	Average gate power dissipation		$T_j = 125^\circ\text{C}$ 1	W
T_{stg} T_j	Storage junction temperature range Operating junction temperature range		- 40 to + 150 - 40 to + 125	°C
V_{RGM}	Maximum peak reverse gate voltage		5	V

STYN216(S) thru STYN1016(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	MIN.	2	mA	
			MAX.	25		
V _{GT}			MAX.	1.3	V	
V _{GD}	V _D = V _{DRM}	R _L = 3.3 kW	T _j = 125°C	MIN.	0.2	V
I _H	I _T = 500 mA	Gate open		MAX.	40	mA
I _L	I _G = 1.2 I _{GT}			MAX.	60	mA
dV/dt	V _D = 67 % V _{DRM}	Gate open	T _j = 125°C	MIN.	500	V/μs
V _{TM}	I _{TM} = 32 A	t _p = 380 μs	T _j = 25°C	MAX.	1.6	V
V _{t0}	Threshold voltage		T _j = 125°C	MAX.	0.77	V
R _d	Dynamic resistance		T _j = 125°C	MAX.	23	mΩ
I _{DRM} I _{RRM}	V _{DRM} = V _{RRM}		T _j = 25°C	MAX.	5	μA
			T _j = 125°C		2	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th(j-c)}	Junction to case (DC)		1.1	°C/W
R _{th(j-a)}	Junction to ambient	TO-220AB	60	°C/W
		S = 1.0 cm ² TO-263	45	

S= copper surface under tab

PRODUCT SELECTOR

Part Number	Voltage (xxx)	Sensitivity	Package
STYNX16S	200~~1000	15 mA	TO-263
STYNX16	200~~1000	15 mA	TO-220AB

OTHER INFORMATION

Part Number	Marking	Weight	Base Quantity	Packing mode
STYNX16S	STYNX16S	1.5 g	50	Tube
STYNX16	STYNX16	1.9 g	50	Tube

Note: x = voltage

