

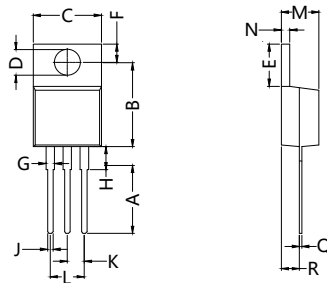
STYN216(S) thru STYN1216(S)

Discrete Thyristors(SCRs)

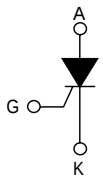


STYN216~STYN1216

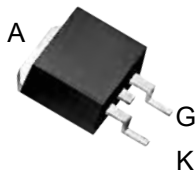
Dimensions TO-220AB



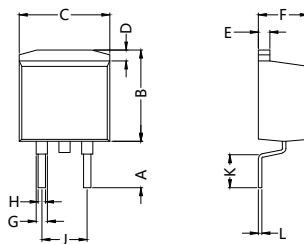
Dim.	Millimeter	
	Min.	Max.
A	12.70	13.97
B	14.73	16.00
C	9.91	10.66
ØD	3.54	4.08
E	5.85	6.85
F	2.54	3.18
G	1.15	1.65
H	2.79	5.84
J	0.64	1.01
K	2.45BSC	
L	5.05BSC	
M	4.32	4.82
N	1.14	1.39
Q	0.35	0.56
R	2.29	2.79



Dimensions TO-263(D²PAK)



STYN216S~STYN1216S



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	5.00	5.60	0.197	0.220
B	9.32	10.52	0.367	0.414
C	9.60	10.40	0.378	0.409
D	1.10	1.40	0.043	0.055
E	1.20	1.50	0.047	0.059
F	4.32	4.82	0.170	0.190
G	1.15	1.65	0.045	0.065
H	0.64	1.00	0.025	0.039
J	4.80	5.20	0.189	0.205
K	2.80	3.90	0.110	0.154
L	0.30	0.45	0.012	0.018



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter			Value	Unit
$I_{T(RMS)}$	RMS on-state current (180° conduction angle)		$T_c = 110^{\circ}C$	16	A
$I_{T(AV)}$	Average on-state current (180° conduction angle)		$T_c = 110^{\circ}C$	10	A
I_{TSM}	Non repetitive surge peak on-state current	$t_p = 8.3 \text{ ms}$	$T_j = 25^{\circ}C$	200	A
		$t_p = 10 \text{ ms}$		190	
$I^2 t$	t Value for fusing	$t_p = 10 \text{ ms}$	$T_j = 25^{\circ}C$	180	A ² s
di/dt	Critical rate of rise of on-state current $I_G = 2 \times I_{GT}$, $t_r \leq 100 \text{ ns}$	$F = 60 \text{ Hz}$	$T_j = 125^{\circ}C$	50	A/ μ s
I_{GM}	Peak gate current	$t_p = 20 \mu\text{s}$	$T_j = 125^{\circ}C$	4	A
$P_{G(AV)}$	Average gate power dissipation		$T_j = 125^{\circ}C$	1	W
T_{stg} T_j	Storage junction temperature range Operating junction temperature range			- 40 to + 150 - 40 to + 125	$^{\circ}C$
V_{RGM}	Maximum peak reverse gate voltage (for STYN only)			5	V

Sirectifier®

STYN216(S) thru STYN1216(S)

Discrete Thyristors(SCRs)

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

■ STANDAR

Symbol	Test Conditions			TYNx08(S)	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	mW
I _{DRM}	V _{DRM} = V _{RRM}	T _j = 25°C	MAX.	5	μA
I _{RRM}		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
STYNxx16S	200~1200	15 mA	TO-263
STYNxx16	200~1200	15 mA	TO-220AB

OTHER INFORMATION

Part Number	Marking	Weight	Base Quantity	Packaging mode
STYNxx16S	STYN xx16S	1.8 g	50	Tube
STYNxx16	STYNxx16	2.0 g	50	Tube

Note: x = voltage

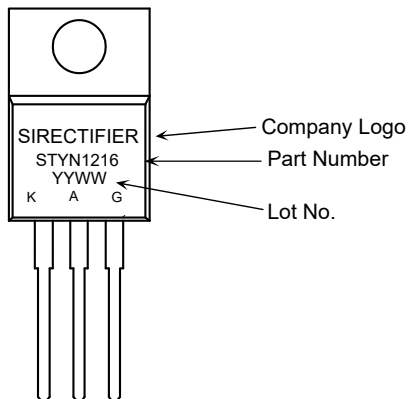
Sirectifier®

STYN216(S) thru STYN1216(S)

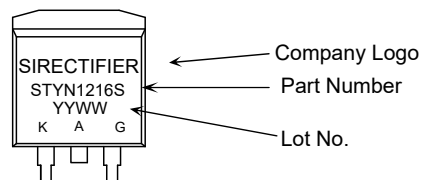
Discrete Thyristors(SCRs)

Marking

STYN1216
(TO-220AB)



STYN1216S
(TO-263)



Ordering Information

Part Number	Package	Shipping	Marking Code
STYN1216	TO-220AB	50pcs / Tube	STYN1216
STYN1216S	TO-263	50pcs / Tube or 800pcs / Tape & Reel	STYN1216S