

SEMIPACK 3 Thyristor Power Module



SEMIPACK 3

- Thyristor power module
- Ceramic isolated baseplate to 2.5 kV
- UL recognised

H = 52, W = 115, D = 50.6, Fixing 80 38, Ø 6.4



$I_0$ (AV) @ $T_c = 85^\circ\text{C}$ A	$I_0$ (RMS) A	$I_{TSM}$ @ $25^\circ\text{C}$ A	Package	Mftrs. List No.
230	370	8500	a	SKKT213 Series

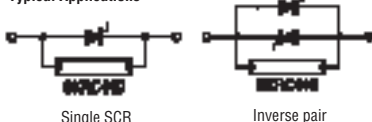
SD224

$V_{DRM}/V_{DRM}$ V	Mftrs. List No.	Order Code	1+	5+	25+
800	SKKT213/08D	310-2841			
1600	SKKT213/16E	.541-916			
2200	SKKT213/22E	310-2853			

Snubber Network



Typical Applications



H = 35 (excl terminals), W = 92, D = 21  
Mounting holes = M5, Fixing centres = 80

- Protects thyristor modules from over voltage
- Upto 500A load current
- Encapsulated
- Standard 80mm fixing centres
- Assists SCR latching

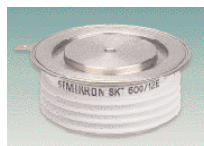
Connections are by 2.8mm push-on connectors (not supplied).

dv/dt suppression For SCRs with dv/dt rating 100V/ $\mu\text{s}$  nom.  
Operating voltage 440V rms  $\pm 10\%$   
Operating frequency 50/60 Hz  
Temperature range  $-40^\circ\text{C}$  to  $+50^\circ\text{C}$   
Plastic encapsulation material **UL94V-0**

SD132

Mftrs. List No.	Order Code	1+	25+	100+
SKRC440	.362-517			

SCR Capsules



- Hermetic metal/ceramic cases
- International standard cases
- Capsule package for double sided cooling
- Amplifying gates (SKT551/12E)
- Shallow design for single sided cooling
- Supplied with leads

SKT551/12E H = 14, Dia = 41, Lead length = 230  
SKT600/12E H = 26, Dia = 57.3, Lead length = 250



$V_{RRM}$ V	$I_{TAV}$ @ $85^\circ\text{C}$ A	$I_{TSM}$ @ $25^\circ\text{C}$ A	$V_T$ V	$R_{thjc}$ $^\circ\text{C}/\text{W}$	F kN	Mftrs. List No.
1200	550	9000	1.65	0.045	5.2-8	SKT551/12E
1200	600	11500	2.00	0.038	10-13	SKT600/12E

SD243

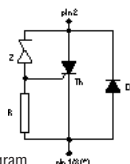
Mftrs. List No.	Order Code	1+	5+	25+
SKT551/12E	663-414			
SKT600/12E	663-426			

Special Application Thyristor

FLC10-200D Fire Lighter Circuit



Circuit diagram



- Integrated SCR/Zener/resistor and diode package
- Dedicated thyristor for capacitive discharge ignition operation
- High pulse current operation
- Ideal for gas ignition applications
- Space saving SOT-82 package



$I_{rm}$ A	$I_{TSM}$ A	$di/dt$ $\text{A}/\mu\text{s}$	$V_T$ V	$I_f$ @ A	$I_{rm(max)}$ $\mu\text{A}$	$V_{bo(max)}$ mA	$I_{bo(max)}$ mA	$V_T(max)$ V
240	240	200	1.7	2	100	250	0.5	1.7

SD455

Mftrs. List No.	Order Code	1+	25+	100+	250+
FLC10-200D	163-120				

Triacs

SOT-223

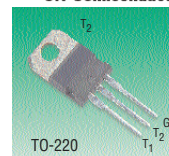
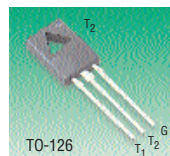
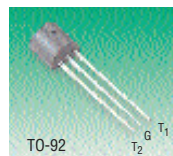


$V_{DRM}$ V	$I_T$ (rms) A	$I_{TSM}$ A	$I_{GT}$ , mA			$V_{GT}$ V	Mftrs. List No.
			t+/g+	t-/g-	t-/g+		
600	1	8.5	3	3	3	5	Z0103MN
600	1	8.5	3	3	3	5	Z0107MN

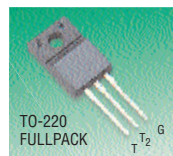
SD85

Order Multiple=5	Price Each					
Mftrs. List No.	Order Code	5+	25+	100+	250+	1K+
Z0103MN	247-017					
Z0107MN	247-029					

TO-92, TO-126, TO-220



ON Semiconductor



$V_{DRM}$ V	$I_T$ rms A	$I_{TSM}$ A	$I_{GT}$ , mA				$V_{GT}$ V	Package	Mftrs. List No.
			t <sub>2+</sub> g+	t <sub>2+</sub> g-	t <sub>2-</sub> g-	t <sub>2-</sub> g+			
600	4.0	30	3	3	3	5	2.5	TO-126	2N6075
<b>Standard TO-220</b>									
400	15.0	150	50	50	50	—	1.5	TO-220	MAC16D
600	8.0	80	50	50	50	—	1.5	TO-220	MAC9M
600	12.0	100	50	50	50	75	2.0	TO-220	MAC212A8
600	12.0	100	35	35	35	—	1.5	TO-220	MAC12M
600	15.0	150	50	50	50	75	2.0	TO-220	MAC15A8
600	25.0	250	50	50	50	75	2.0	TO-220	MAC223A8
600	40.0	350	50	50	50	75	2.0	TO-220	MAC224A8
800	8.0	100	50	50	50	75	2.0	TO-220 Full-Pack	MAC218A10FP
800	15.0	150	50	50	50	—	1.5	TO-220	MAC16N
800	25.0	250	50	50	50	75	2.0	TO-220	MAC223A10
800	40.0	350	50	50	50	75	2.0	TO-220	MAC224A10
<b>High Commutation</b>									
600	15.0	150	50	50	50	—	1.5	TO-220	MAC16M

SD370

Order Multiple=1	Price Each					
Mftrs. List No.	Order Code	1+	25+	100+	250+	1K+
MAC9M	992-860					
MAC12M	334-3492					
MAC15A8	878-285					
MAC16D	162-188					
MAC16M	878-273					
MAC16N	992-859					
MAC212A8	878-339					
MAC218A10FP	NEW 352-6239					
MAC223A8	878-248					
MAC223A10	878-200					
MAC224A8	878-352					
MAC224A10	878-145					
2N6075B	878-121					

Continued

Flammability Classifications

- UL94V-0** Self extinguishing within 10 secs. No flame drips which ignite
- UL94V-1** Self extinguishing within 30 secs. No flame drips which ignite
- UL94V-2** Self extinguishing within 30 secs. Flame drips which ignite
- UL94-HB** Reduced burning rate when burnt horizontally

The UL specifications above are flammability tests carried out on plastic materials by the Underwriters Laboratory. The specifications are split into vertical and horizontal burning tests, dependent on the viscosity of the material.

The vertical tests measure the extinguishing time and whether any flame drips (burning droplets) fall onto and ignite gauze.

The horizontal tests measure the burning gauze of the material.

Extract from Underwriters Laboratory specification – UL94 – ‘Tests for flammability of plastic materials’.