






the figures in the part-no. represent the current rating [A]

V _{DRM,RRM} max. 800 V	V _{DRM,RRM} max. 1400 V	Packages
T 72 F T 102 F	T 80 F T 120 F T 320 F	Stud case 
	T 290 F T 340 F	Flat case 
T 178 F T 308 F T 698 F T 1078 F	T 128 F T 188 F T 318 F T 358 S T 408 F T 598 F T 599 F	Epoxy disc 
V _{DRM,RRM} max. 2000 V T 468 S T 481 S T 930 S	T 510 S T 600 S T 1052 S	Ceramic disc 
V _{DRM,RRM} max. 3000 V T 675 S T 691 S T 821 S T 1101 S		

Special Links: [Outlines](#) [Technical Information](#) [Picture Text](#) [Heatsinks](#)
 click on part-no. to select datasheet - click on other topologies to change menu

the figures in the part-no. represent the current rating [A]

V_{DRM} max. 1300 V	V_{RRM} max. 2800 V	Packages
A 158 S	A 901 S	 <p>Ceramic disc</p>
A 198 S	A 931 S	
A 358 S		
A 438 S		

click on part-no. to select datasheet - click on other topologies to change menu

Type designations

Thyristors

T	930	S	18	T	M	C	
T							symmetrically blocking thyristor
A							asymmetrically blocking thyristor
	930						limiting average forward current (A) at $t_c = 85^\circ \text{C}$
		0					Ceramic disc W
		1					Ceramic disc P
		4					Epoxy disc 19 mm high
		6					Epoxy disc 35 mm high
		7					Epoxy disc 8 mm high
		8					Epoxy disc 14 mm high
		9					Epoxy disc 26 mm high
2.Letter							
		S					fast thyristor, gate-cathode interdigitated
		F					fast thyristor, central gate
		N					phase control thyristor
	18						limiting repetitive peak forward and reverse off-state voltage in 100 V, 18 = 1800 V (A: repetitive peak forward off-state voltage)
3.Letter							
							mechanical construction
		B					anode: metric thread cable
		C					metric thread solder pin
		E					flat base cable
		F					TO 220 case
		T					disc
4.Letter							
							maximum turn-off time
		A					8 μs
		B					10 μs
		C					12 μs
		D					15 μs
		S					18 μs
		E					20 μs
		F					25 μs
		G					30 μs
		K					40 μs
		M					50 μs
		P					55 μs
		N					60 μs
		T					80 μs
		U					120 μs
		O					no guaranteed max. value
		1					see data sheet
		2					see data sheet
5.Letter							
							critical rate of rise forward voltage, thyristors for line commutated converters:
		B					50 V/ μs
		C					500 V/ μs
		F					1000 V/ μs
		G					1500 V/ μs
		H					2000 V/ μs
							thyristors for self-commutated converters:
							critical rate of rise of forward voltage
							according to DIN IEC 747-6:
							immediately after turn-off:
		B					50 V/ μs
		C					500 V/ μs
		F					1000 V/ μs
		L					50 V/ μs
		M					1000 V/ μs
		N					50 V/ μs

Rectifier

D	1809	N	32				
D							diode
	1809						limiting average current (A)
		N					as a rule at $t_c = 100^\circ \text{C}$
							rectifier diode:
							anode on case
							or press-pack
		K					cathode on case
							fast rectifier diode:
							anode on case
							or press-pack
							cathode on case
							limiting repetitive peak reverse voltage in 100 V
							mechanical construction:
							metric thread wire
							metric thread cable
							stud solder pin
							flat-base cable
							press-pack
		A					Avalanche Diode
							anode / case
		B					Avalanche Diode
							cathode / case

Half-controlled thyristor modules

TD	121	N	18	K	O	F	-A
TD,DT							
AD							
	121						with 1 symmetric thyristor and 1 diode
							with 1 asymmetric thyristor and 1 diode
							(for circuit see outline)
							limiting average on-state current (A), $t_c = 85^\circ \text{C}$
		N					phase control thyristor and rectifier diode
							fast thyristor
							and fast diode
							fast thyristor with interdigitated gate and fast diode
							repetitive peak-off-state voltage in 100 V
							mech. constr.:
							pressure contact
							turn-off time
							(see thyristors)
							critical rate of rise of off-state voltage
							-A special design with common anode
							-K special design with common cathode

IGBT modules Type designation

IGBT & Diode: IHM/IHV & all new eupec modules							
FF	800	R	17	K	F	6	D B2
FF							Dual Switch
FZ							Single Switch
FS							3-phase full Bridge
FP							Power integrated Modul
F4-							One phase bridge
FD							Chopper config.
DD							Dual Diode
							(for circuit see outline)
	800						Max. DC-collector current (A)
		R					Reverse conducting
		S					Fast Short Tail IGBT Chip
			17				Collector-emitter-voltage in 100 V
				K			Mechanical construction: Module
					F		Fast switching IGBT Chip
					L		Low Loss IGBT Chip
					S		Short Tail IGBT Chip
					E		Low Sat & fast IGBT ³ Chip
						1..n	Internal reference number
						C	With EmCon diode
						D	Higher rated diode
						B1..n	Construction variation
						S1..n	Electrical selection

IGBT & Diodes: BSM modules

BSM	100	GB	120	D	N2	K	
B							Silicon
S							Type: S=Switch, Y = Diode
							Module
							current rating $I_C = 100 \text{ A}$
							technology: G = IGBT-technology
							Configuration:
							A = single switch / diode
							B = Halfbridge
							D = 3-phase full bridge
							T = Tripack (3 single switches)
							P = Power Integrated Module
							AL=Chopper, diode conn. to collector
							AR=Chopper, diode conn. to emitter
							max. coll.-emitter-voltage in 10V
							with fast internal diode
							low inductance module design
							L Low Loss IGBT chip
							2nd generation silicon
							K design variation
							G design variation
							S collector sense
							E xxxx special type with codo-no.