



GSD61015

RECTIFIER DIODE

Standard and reverse polarities
Compression bonded encapsulation

VOLTAGE UP TO	1200 V
AVERAGE CURRENT	150 A
SURGE CURRENT	3 kA

Symbol	A	B	C	D	E	F	G	H
Inches	0.63	0.34	0.98	1.58	0.89	4.48	0.63	0.281
mm	16.0	8.6	24.9	40.1	22.6	113.8	16.0	7.14

Strike distance .64 inch / 16.2 mm (Min)

BLOCKING CHARACTERISTICS

Characteristic	Conditions	Value
VRRM	Repetitive peak reverse voltage	1200 V
VRSM	Non-repetitive peak reverse voltage	1300 V
IRRM	Repetitive peak reverse current, max.	VRRM, single phase, half wave, T _j = T _{jmax}
		30 mA

FORWARD CHARACTERISTICS

I _{F(AV)}	Average forward current	Sine wave, 180° conduction, T _c = 150°C	150 A
I _{F(RMS)}	R.M.S. forward current	Sine wave, 180° conduction, T _c = 150°C	236 A
I _{FSM}	Surge forward current	Non rep. half sine wave, 50 Hz, V _R = 0 V, T _j = T _{jmax}	3 kA
I ² t	I ² t for fusing coordination		37.5 kA ² s
V _{F(TO)}	Threshold voltage	T _j = T _{jmax}	0.8 V
r _F	Forward slope resistance	T _j = T _{jmax}	1.17 mΩ
V _{FM}	Peak forward voltage, max	Forward current I _F = 500 A, T _j = 25°C	1.38 V

SWITCHING CHARACTERISTICS

Q _{rr}	Reverse recovery charge	T _j = T _{jmax} , I _F = A, t _p = μs, di/dt = A/μs	μC
I _{rr}	Reverse recovery current	V _R = V, dV/dt = V/μs	A
t _{rr}	Reverse recovery time		μs
V _{FP}	Forward recovery voltage	T _j = T _{jmax} , di/dt = A/μs	V

THERMAL AND MECHANICAL CHARACTERISTICS

R _{th(j-c)}	Thermal resistance (junction to case)	Double side cooled	0.28 °C/W
R _{th(c-h)}	Thermal resistance (case to heatsink)	Double side cooled	0.15 °C/W
T _{jmax}	Max operating junction temperature		200 °C
T _{stg}	Storage temperature		-65 / 200 °C
M	Mounting torque		12.5 N·m
	Mass		100 g