

# ID100-ID106

## SILICON CONTROLLED RECTIFIERS

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

Rating	Symbol	ID100	ID101	ID102	ID103	ID104	ID105	ID106	Unit
Repetitive peak off state voltage	$V_{DRM}$	30	60	100	150	200	300	400	Volts
Repetitive peak reverse voltage	$V_{RRM}$	30	60	100	150	200	300	400	Volts
DC on-state current 75°C ambient 100°C case	$I_T$	250 0.5							mA Amps
Repetitive peak on-state current	$I_{TRM}$	6							Amps
Peak one cycle surge (non-repetitive) on-state current	$I_{TSM}$	Up to 30							Amps
Peak gate current	$I_{GM}$	250							mA
Average gate current	$I_{G(AV)}$	25							mA
Reverse gate voltage	$V_{GR}$	6							Volts
Storage temperature range	$T_{stg}$	-65 to 150							°C
Operating temperature range	$T_J$	-65 to 125							°C

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

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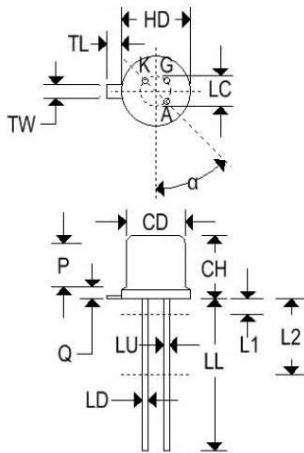
Blocking voltage ratings apply over the full operating temperature range, provided the gate is connected to the cathode through an appropriate resistor, 1000 ohms or smaller, or other adequate gate bias is used.

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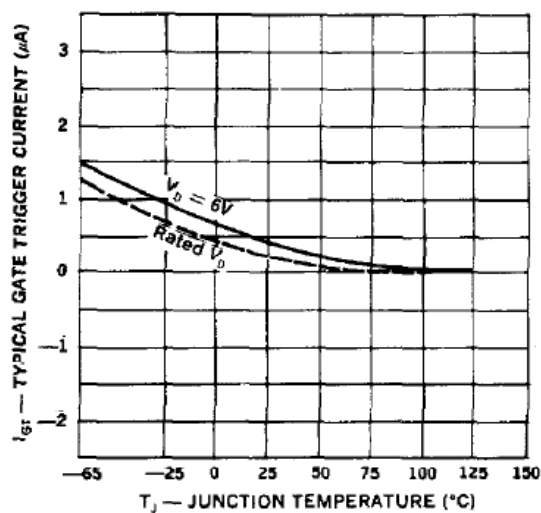
### MECHANICAL CHARACTERISTICS

Case	TO-18
Marking	Alpha-numeric
Pin out	See below

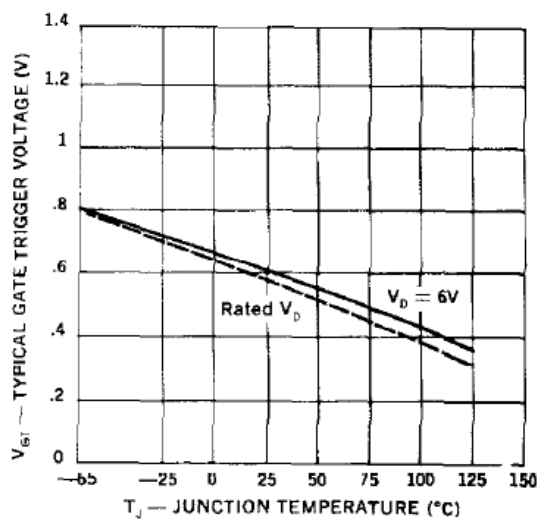


	TO-18			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.209	0.230	5.310	5.840
B	0.178	0.195	4.520	4.950
C	0.170	0.210	4.320	5.330
D	0.016	0.021	0.406	0.533
E	-	0.030	-	0.762
F	0.016	0.019	0.406	0.483
G	0.100 BSC		2.540 BSC	
H	0.036	0.046	0.914	1.170
J	0.028	0.048	0.711	1.220
K	0.500	-	12.700	-
L	0.250	-	6.350	-
M	45° C BSC		45° BSC	
N	0.050 BSC		1.270 BSC	
P	-	0.050	-	1.270

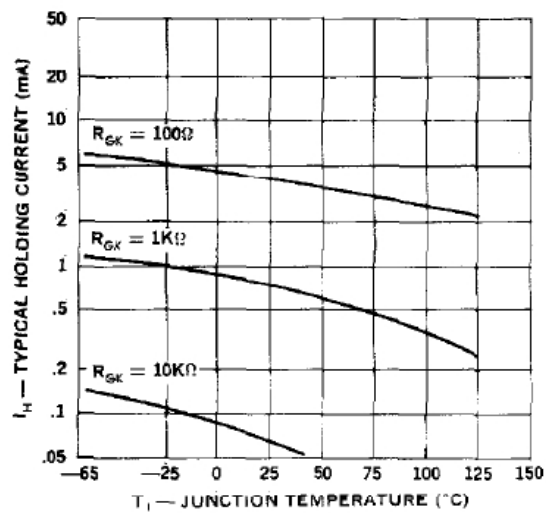
**Gate Trigger Current vs. Junction Temp.**



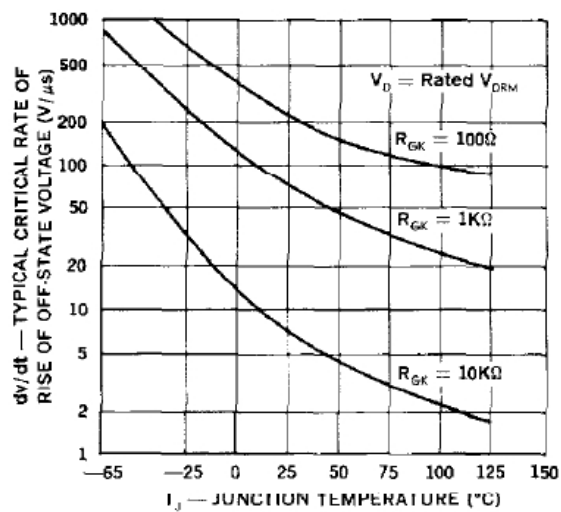
**Gate Trigger Voltage vs. Junction Temp.**



**Holding Current vs. Junction Temp.**



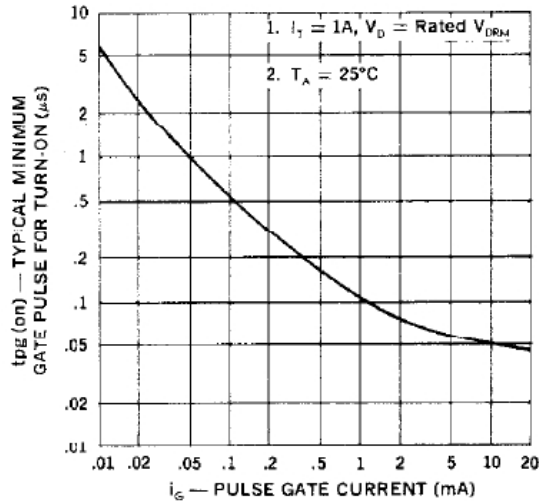
**dv/dt vs. Junction Temp.**



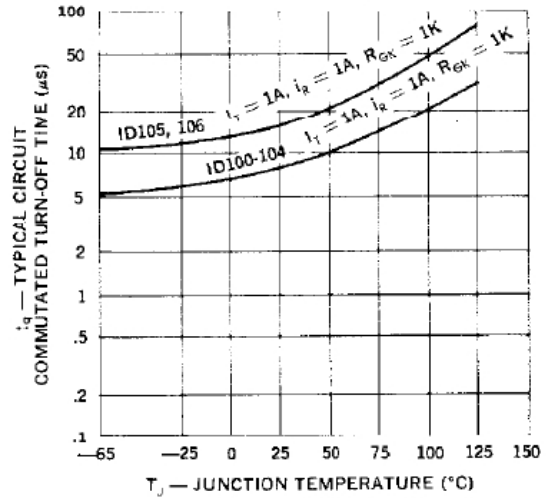
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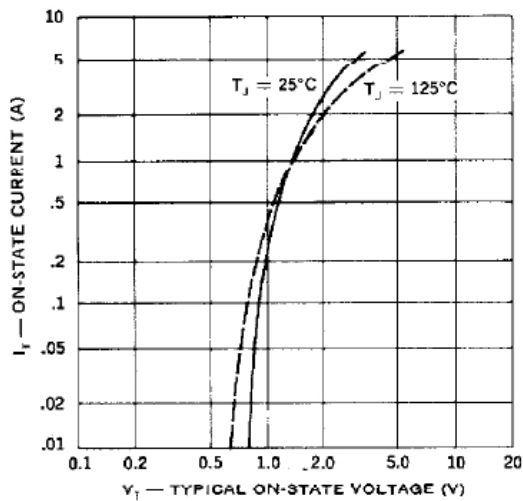
**Gate Pulse for Turn-On vs. Pulse Gate Current**



**Circuit Commutated Turn-Off Time vs. Junction Temp.**



**Current vs. On State Voltage**



**Current vs. Power Dissipation**

