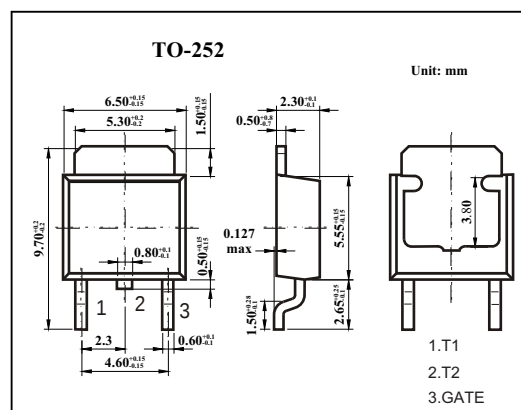
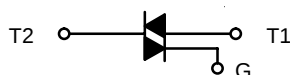


Silicon Bidirectional Thyristors

CR5AM

■ Features

- Blocking voltage to 400 V
- General purpose bidirectional switching

■ Absolute Maximum Ratings $T_a = 25^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Repetitive peak off-state voltages	$V_{\text{DRM}}, V_{\text{RRM}}$	400	V
RMS on-state current	$I_{\text{T(RMS)}}$	5	A
Non-repetitive peak on-state current	I_{TSM}	50	A
Circuit Fusing Considerations ($t = 8.3 \text{ ms}$)	$I^2 t$	10.4	A^2s
Peak Gate Voltage	V_{GM}	10	V
Average Gate Power	$P_{\text{G(AV)}}$	0.3	W
Peak Gate Power	P_{GM}	3	W
Peak Gate Current	I_{GM}	2	A
Operating Junction Temperature Range	T_{J}	-40 to 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-40 to 150	$^{\circ}\text{C}$

■ Electrical Characteristics $T_a = 25^{\circ}\text{C}$

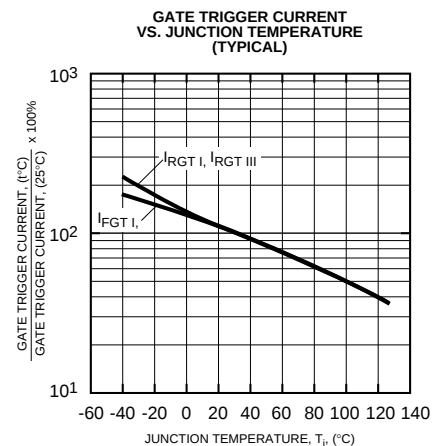
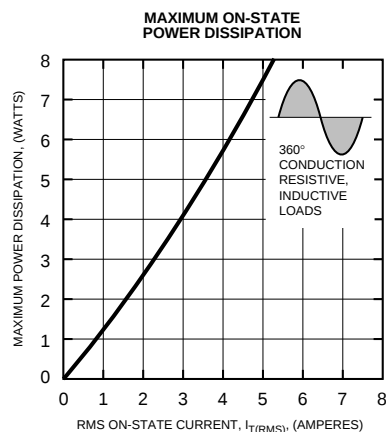
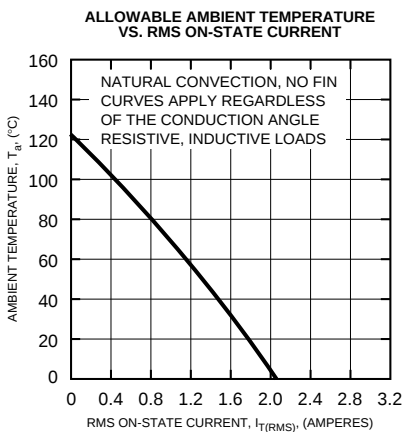
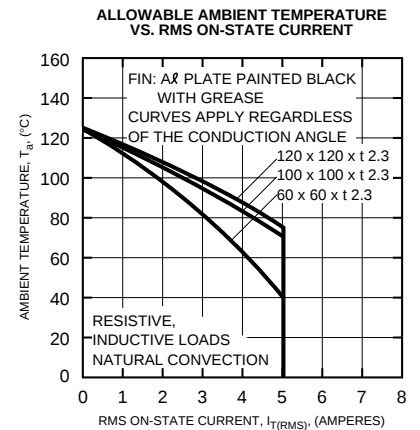
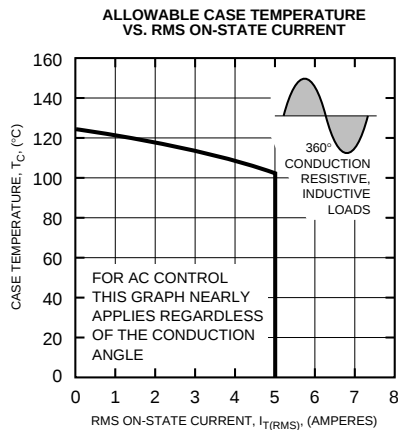
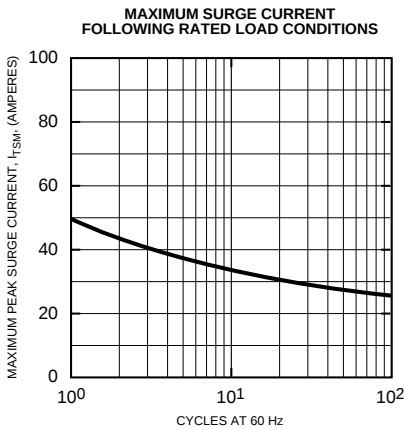
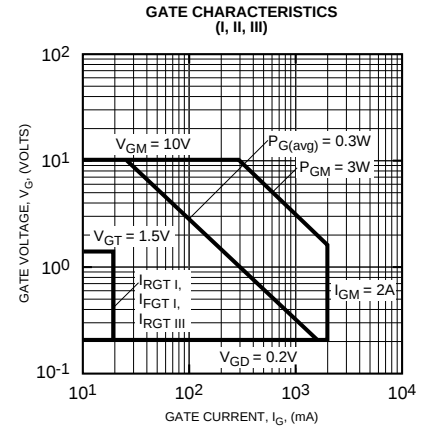
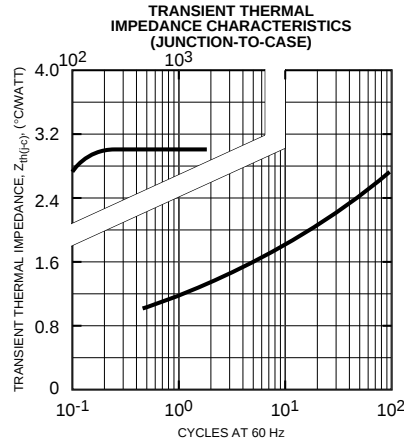
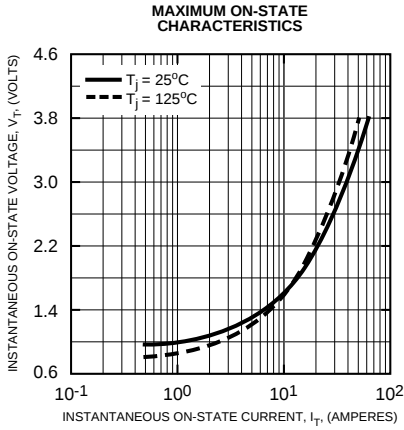
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Peak Repetitive Blocking Current	$I_{\text{DRM}}, I_{\text{RRM}}$	$V_{\text{D}} = \text{Rated } V_{\text{DRM}}, V_{\text{RRM}}; \text{Gate Open}$			2	mA
Peak On- State Voltage	V_{TM}	$I_{\text{T}} = 7 \text{ A}$			1.8	V
Gate trigger current	I_{GT}	$T_2(+), G(+)$			20	mA
		$T_2(+), G(-)$			20	mA
		$T_2(-), G(-)$			20	mA
		$T_2(-), G(+)$			-	mA
Gate trigger voltage	V_{GT}	$T_2(+), G(+)$			1.5	V
		$T_2(+), G(-)$			1.5	V
		$T_2(-), G(-)$			1.5	V
		$T_2(-), G(+)$			-	V
DC Gate Non-trigger Voltage	V_{GD}	$V_{\text{D}} = 1/2 V_{\text{DRM}}$	0.2			V

■ Marking

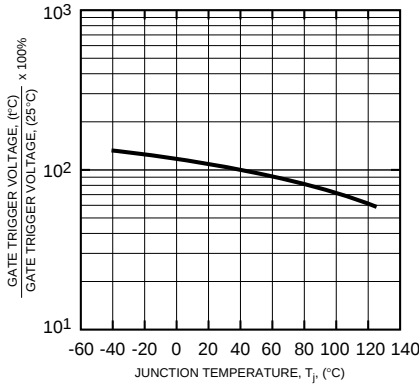
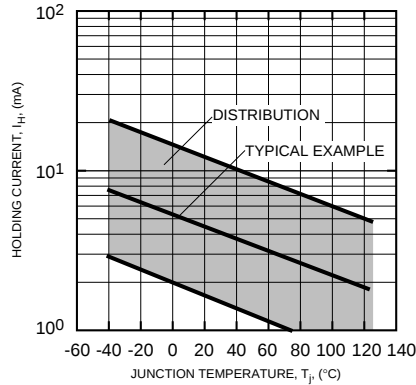
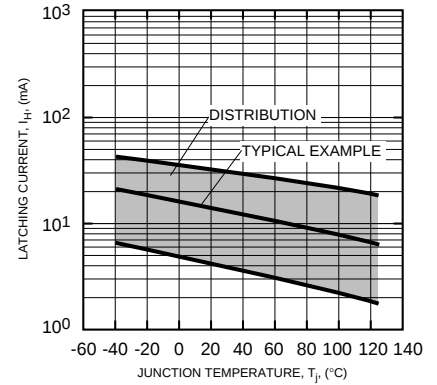
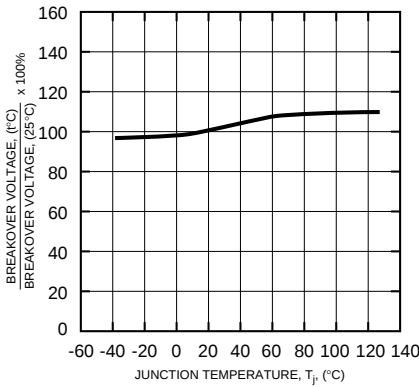
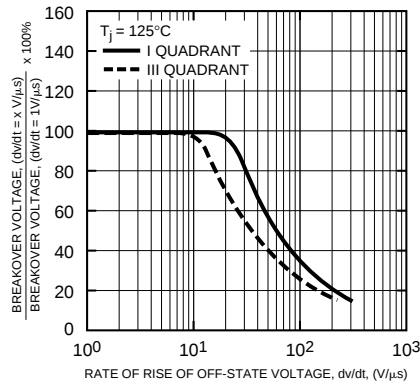
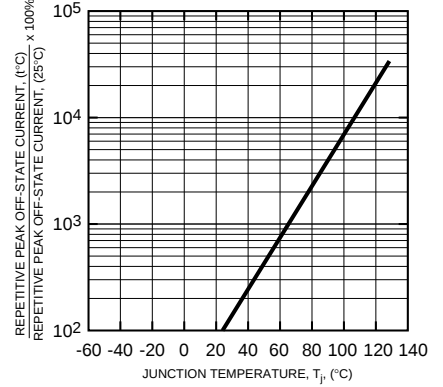
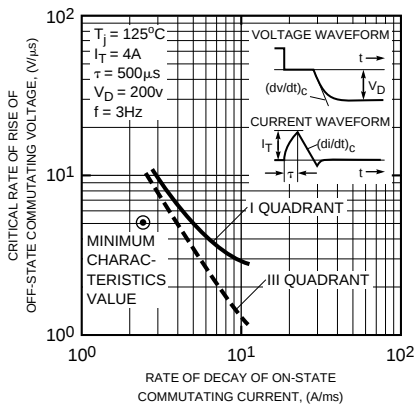
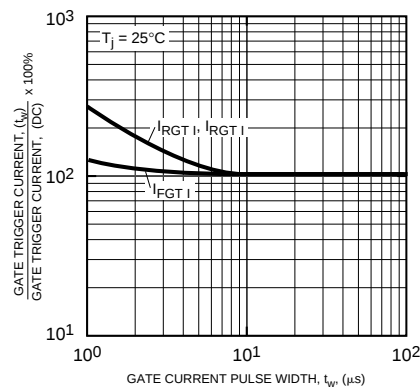
Marking	CR5AM
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CR5AM

■ Typical Characteristics



CR5AM

GATE TRIGGER VOLTAGE
VS. JUNCTION TEMPERATURE
(TYPICAL)HOLDING CURRENT
VS. JUNCTION TEMPERATURE
(TYPICAL)LATCHING CURRENT
VS. JUNCTION TEMPERATURE
(TYPICAL)BREAKOVER VOLTAGE
VS. JUNCTION TEMPERATURE
(TYPICAL)BREAKOVER VOLTAGE VS.
RATE OF RISE OF OFF-STATE VOLTAGE
(TYPICAL)REPETITIVE PEAK OFF-STATE CURRENT
VS. JUNCTION TEMPERATURE
(TYPICAL)COMMUTATION CHARACTERISTICS
(TYPICAL)GATE TRIGGER CURRENT
VS. GATE CURRENT PULSE WIDTH
(TYPICAL)GATE TRIGGER CHARACTERISTICS
TEST CIRCUITS