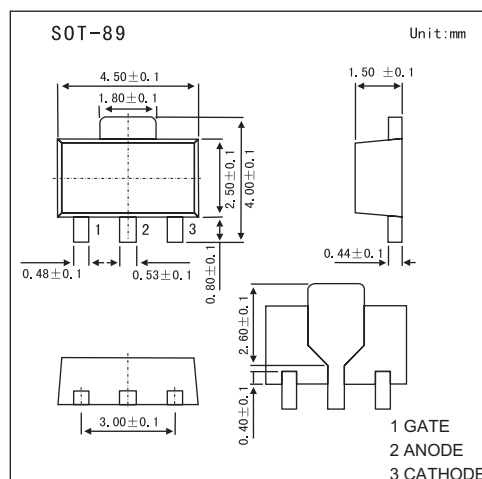


Low Power Use Non-Insulated Type, Glass Passivation Type CR08AS

■ Features

- $I_{T(AV)}$:0.8A
- V_{DRM} :400V/600V
- I_{GT} :100 μ A



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

Parameter	Symbol	CR08AS-8	CR08AS-12	Unit
Repetitive peak reverse voltage	V_{RRM}	400	600	V
Non-repetitive peak reverse voltage	V_{RSM}	500	720	V
DC reverse voltage	$V_{R(DC)}$	320	480	V
Repetitive peak off-state voltage *1	V_{DRM}	400	600	V
DC off-state voltage *1	$V_{D(DC)}$	320	480	V
RMS on-state current	$I_{T(RMS)}$	1.26		A
Average on-state current	$I_{T(AV)}$	0.8		A
Surge on-state current	I_{TSM}	10		A
I^2t for fusing	I^2t	0.42		A^2s
Peak gate power dissipation	P_{GM}	0.5		W
Average gate power dissipation	$P_{G(AV)}$	0.1		W
Peak gate forward voltage	V_{FGM}	6		V
Peak gate reverse voltage	V_{RGM}	6		V
Peak gate forward current	I_{FGM}	0.3		A
Junction temperature	T_j	-40 to +125		$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125		$^\circ\text{C}$

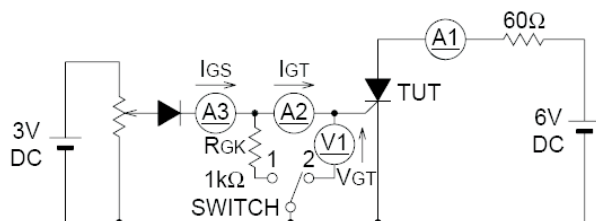
*1 With Gate-to-cathode resistance $R_{GK}=1k\Omega$

CR08AS

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

Parameter	Symbol	Testconditions	Min	Typ.	Max	Unit
Repetitive peak reverse current	I_{RRM}	$T_j=125^\circ\text{C}$, V_{RRM} applied, $R_{GK}=1\text{k}\Omega$			0.5	mA
Repetitive peak off-state current	I_{DRM}	$T_j=125^\circ\text{C}$, V_{DRM} applied, $R_{GK}=1\text{k}\Omega$			0.5	mA
On-state voltage	V_{TM}	$T_a=25^\circ\text{C}$, $I_{TM}=2.5\text{A}$, instantaneous value			1.5	V
Gate trigger voltage	V_{GT}	$T_a=25^\circ\text{C}$, $V_D=6\text{V}$, $I_T=0.1\text{A}^*1$			0.8	V
Gate non-trigger voltage	V_{GD}	$T_j=125^\circ\text{C}$, $V_D=1/2V_{DRM}$, $R_{GK}=1\text{k}\Omega$	0.2			V
Gate trigger current	I_{GT}	$T_j=25^\circ\text{C}$, $V_D=6\text{V}$, $I_T=0.1\text{A}^*1$	1		100 ^{*2}	μA
Holding current	I_H	$T_j=25^\circ\text{C}$, $V_D=12\text{V}$, $R_{GK}=1\text{k}\Omega$		1.5	3	mA
Thermal resistance	$R_{th(j-a)}$	Junction to ambient			65	$^\circ\text{C/W}$

*1 I_{GT} , V_{GT} measurement circuit.



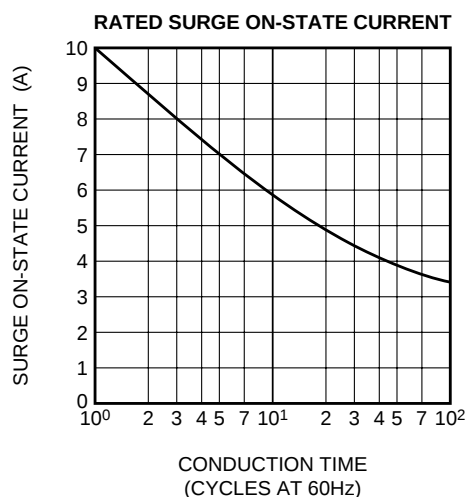
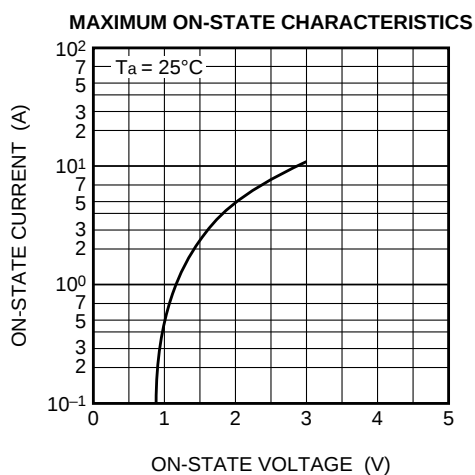
SWITCH 1 : I_{GT} measurement
 SWITCH 2 : V_{GT} measurement
 (Inner resistance of voltage meter is about $1\text{k}\Omega$)

*2 If special values of I_{GT} are required, choose at least two items from those listed in the table below.

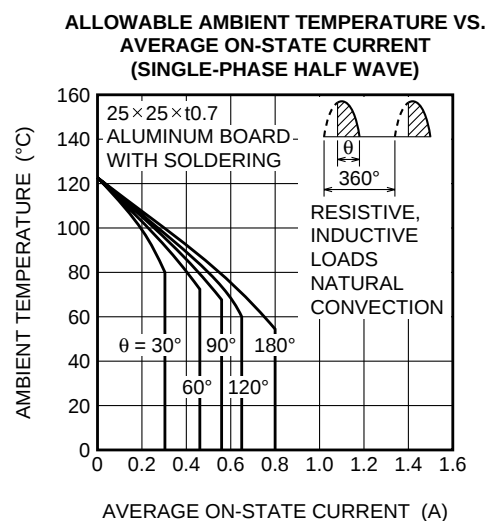
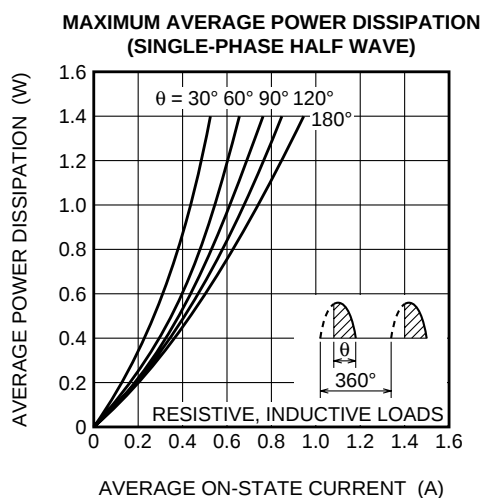
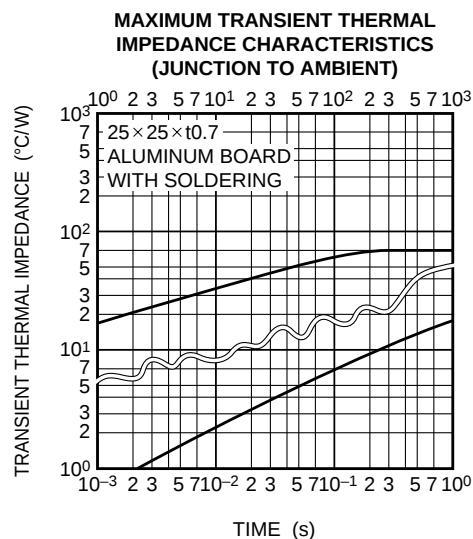
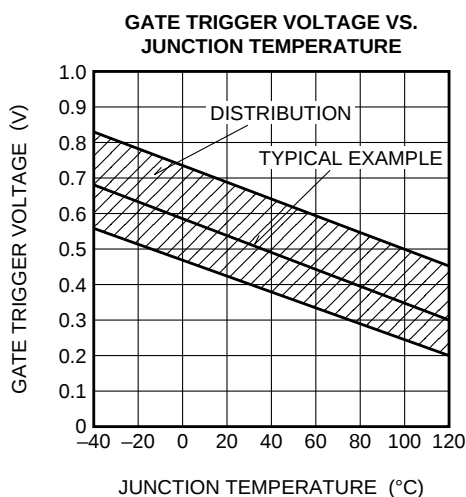
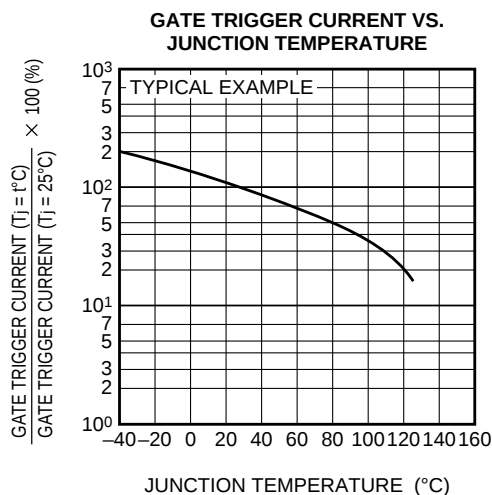
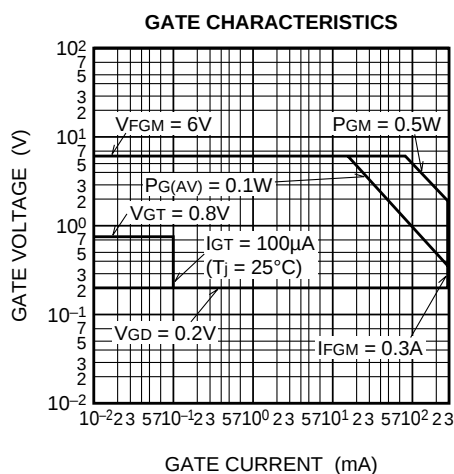
Item	A	B	C
$I_{GT} (\mu\text{A})$	1 to 30	20 to 50	40 to 100

■ Marking

NO.	CRO8AS-8	CRO8AS-12
Marking	AD	AF

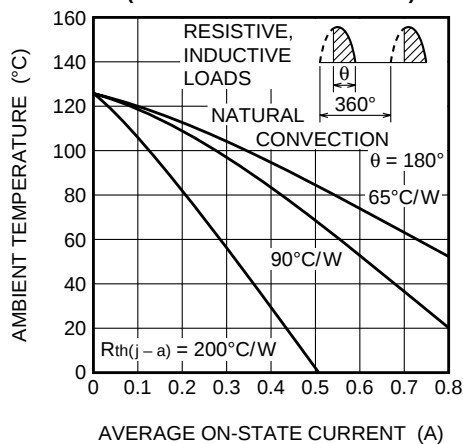


CR08AS

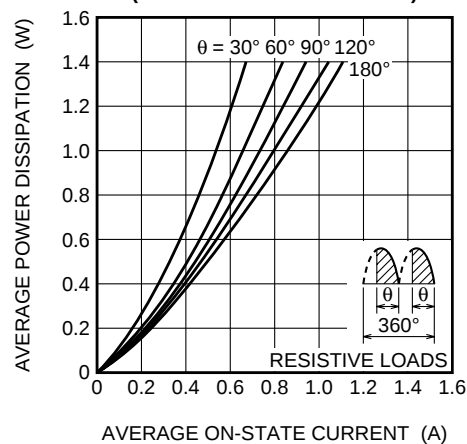


CR08AS

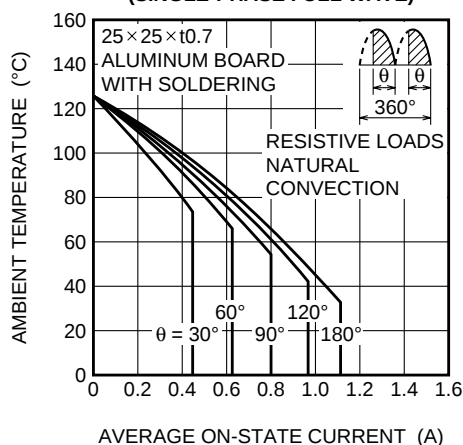
ALLOWABLE AMBIENT TEMPERATURE VS.
AVERAGE ON-STATE CURRENT
(SINGLE-PHASE HALF WAVE)



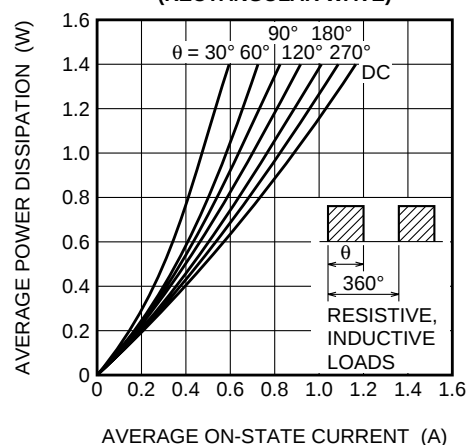
MAXIMUM AVERAGE POWER DISSIPATION
(SINGLE-PHASE FULL WAVE)



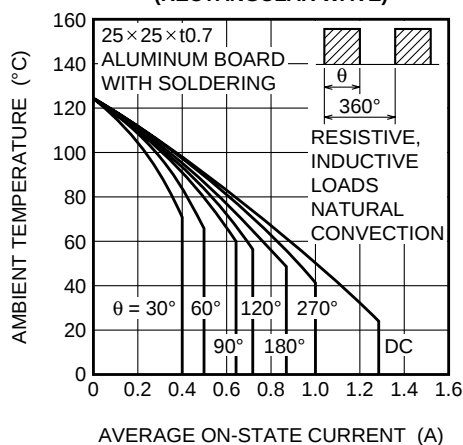
ALLOWABLE AMBIENT TEMPERATURE VS.
AVERAGE ON-STATE CURRENT
(SINGLE-PHASE FULL WAVE)



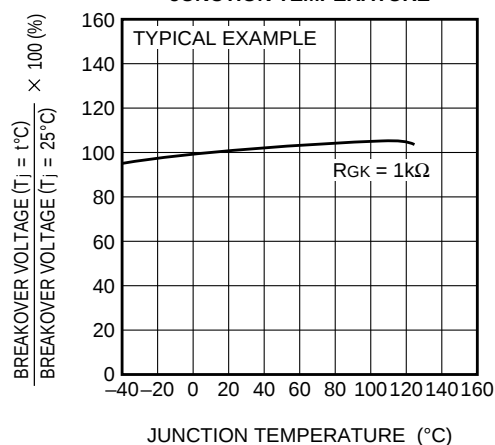
MAXIMUM AVERAGE POWER DISSIPATION
(RECTANGULAR WAVE)



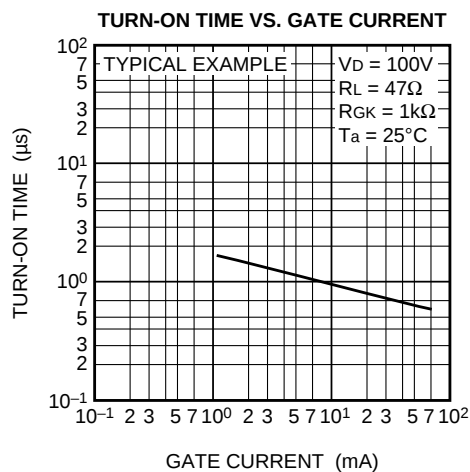
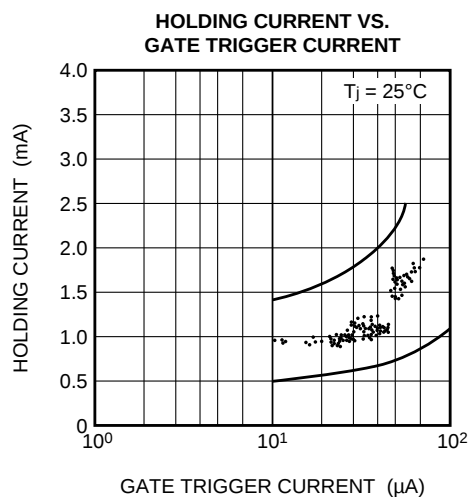
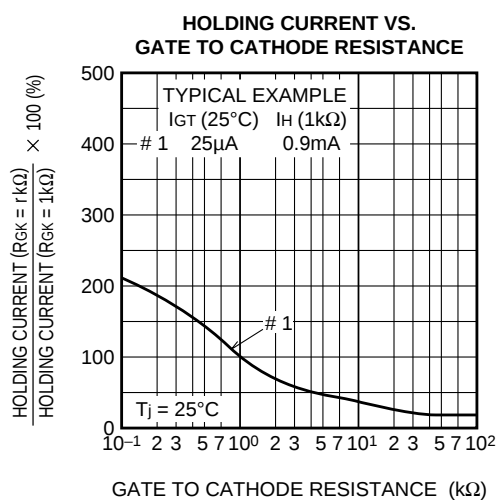
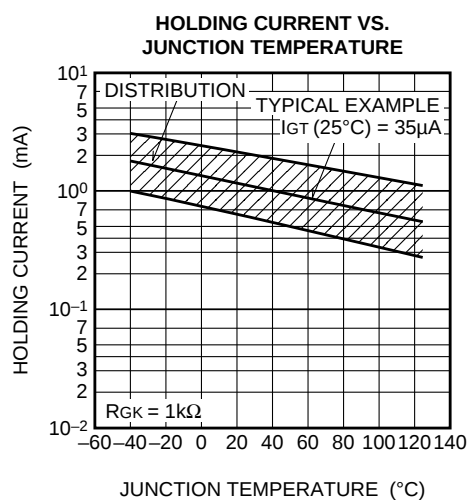
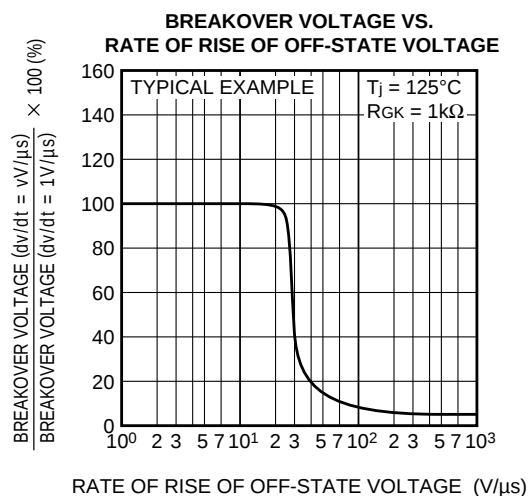
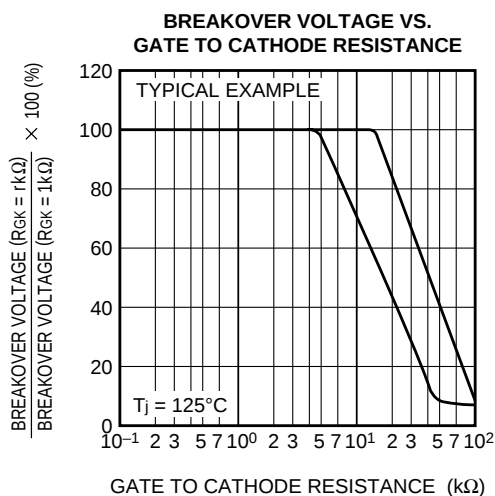
ALLOWABLE AMBIENT TEMPERATURE VS.
AVERAGE ON-STATE CURRENT
(RECTANGULAR WAVE)



BREAKEOVER VOLTAGE VS.
JUNCTION TEMPERATURE



CR08AS



CR08AS

