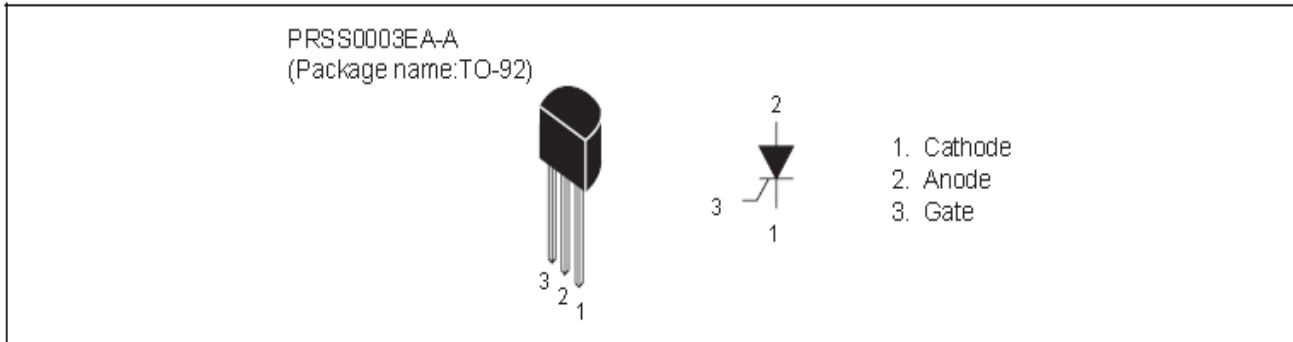


Features

- IT (AV) : 0.8 A
- VDRM : 1000 V
- IGT : 100 μ A
- Non-Insulated Type
- Glass Passivation Type

Outline



Applications

Leakage protector, timer, and gas igniter

Maximum Ratings

Parameter	Symbol	Voltage class	Unit
		12	
Repetitive peak reverse voltage	V_{RRM}	1000	V
Non-repetitive peak reverse voltage	V_{RSM}	1200	V
DC reverse voltage	$V_{R(DC)}$	960	V
Repetitive peak off-state voltage ^{Note 1}	V_{DRM}	1000	V
Non-repetitive peak off-state voltage ^{Note 1}	V_{DSM}	1200	V
DC off-state voltage ^{Note 1}	$V_{D(DC)}$	960	V

Parameter	Symbol	Rated	Unit	Conditions
RMS on-state current	$I_T (RMS)$	1.9	A	
Average on-state current	$I_T (AV)$	0.8	A	Commercial frequency, sine half wave 180° conduction, $T_a = 47^\circ C$
Surge on-state current	I_{TSM}	30	A	60Hz sine half wave 1 full cycle, peak value, non-repetitive
I _{ct} for fusing	I_{ct}	1.6	A _{2s}	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current
Peak gate power dissipation	P_{GM}	0.98	W	
Average gate power dissipation	$P_G (AV)$	0.24	W	
Peak gate forward voltage	V_{FGM}	6	V	
Peak gate reverse voltage	V_{RGM}	6	V	
Peak gate forward current	I_{FGM}	0.8	A	
Junction temperature	T_J	-40 to +110	°C	
Storage temperature	T_{stg}	-40 to +125	°C	
Mass	—	0.23	g	Typical value

Electrical Characteristics

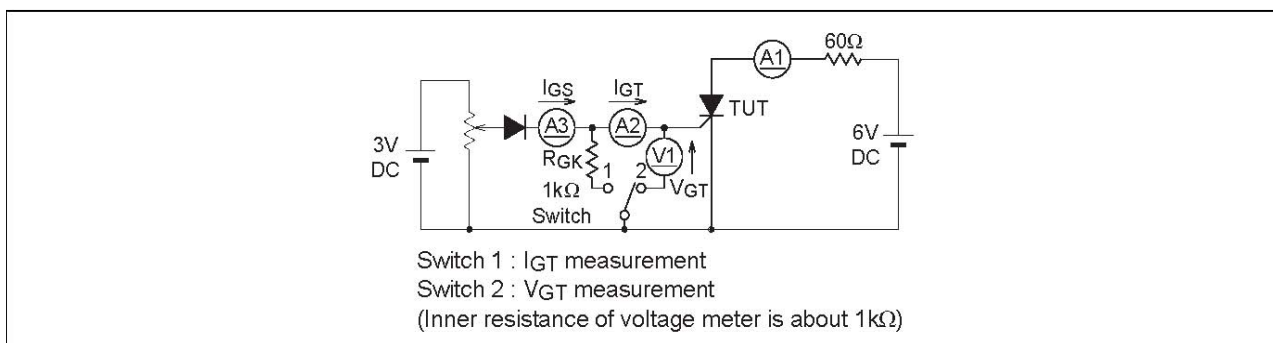
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Repetitive peak reverse current	I_{RRM}	—	—	0.1	mA	$T_J = 110^\circ C$, V_{RRM} applied
Repetitive peak off-state current	I_{DRM}	—	—	0.1	mA	$T_J = 110^\circ C$, V_{DRM} applied, $R_{GK} = 1 k\Omega$
On-state voltage	V_{TM}	—	—	1.8	V	$T_a = 25^\circ C$, $I_{TM} = 4 A$, instantaneous value
Gate trigger voltage	V_{GT}	—	—	0.8	V	$T_J = 25^\circ C$, $V_D = 6 V$, $I_T = 0.1 A$ ^{Note3}
Gate non-trigger voltage	V_{GD}	0.2	—	—	V	$T_J = 110^\circ C$, $V_D = 1/2 V_{DRM}$, $R_{GK} = 1 k\Omega$
Gate trigger current	I_{GT}	1	—	100 ^{Note2}	μA	$T_J = 25^\circ C$, $V_D = 6 V$, $I_T = 0.1 A$ ^{Note3}
Holding current	I_H	—	1.5	3	mA	$T_J = 25^\circ C$, $V_D = 12 V$, $R_{GK} = 1 k\Omega$
Thermal resistance	$R_{th (j-a)}$	—	—	180	°C/W	Junction to ambient

Notes: 2. If special values of I_{GT} are required, choose item D or E from those listed in the table below if possible.

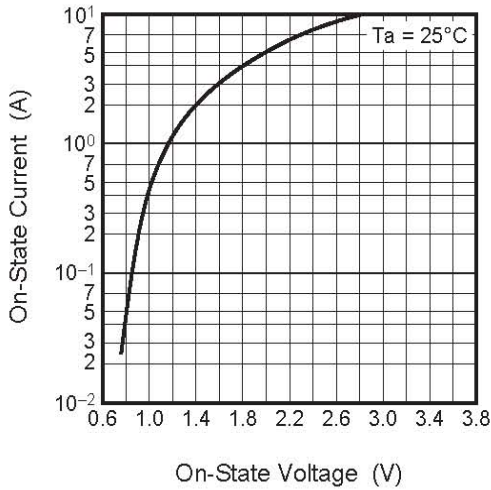
Item	A	B	C	D	E
$I_{GT} (\mu A)$	1 to 30	20 to 50	40 to 100	1 to 50	20 to 100

The above values do not include the current flowing through the 1 kΩ resistance between the gate and cathode.

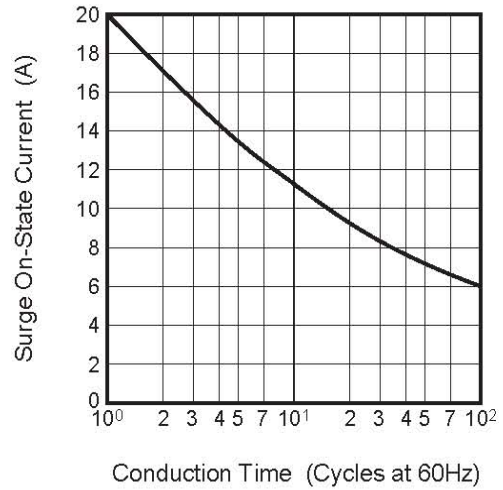
3. I_{GT} , V_{GT} measurement circuit.



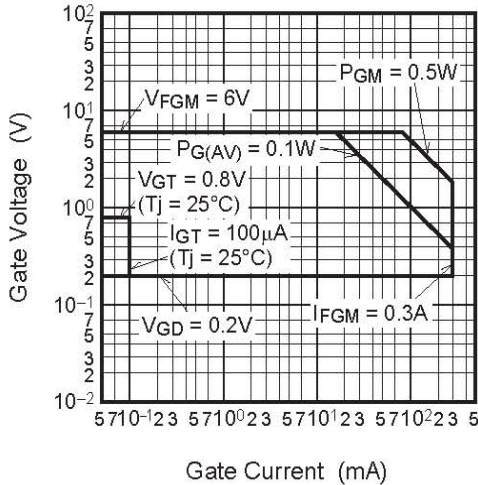
Maximum On-State Characteristics



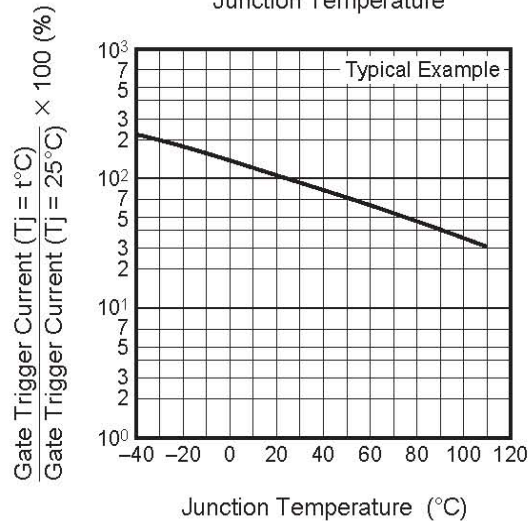
Rated Surge On-State Current



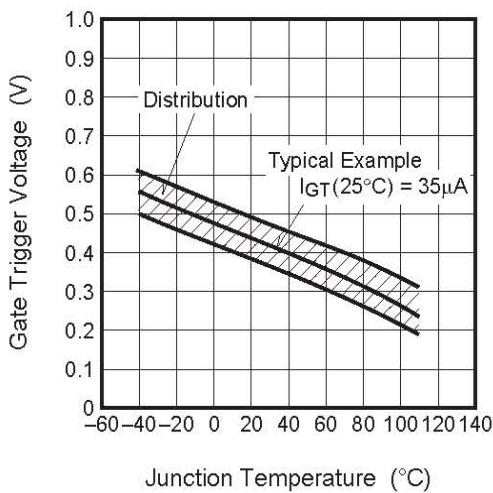
Gate Characteristics



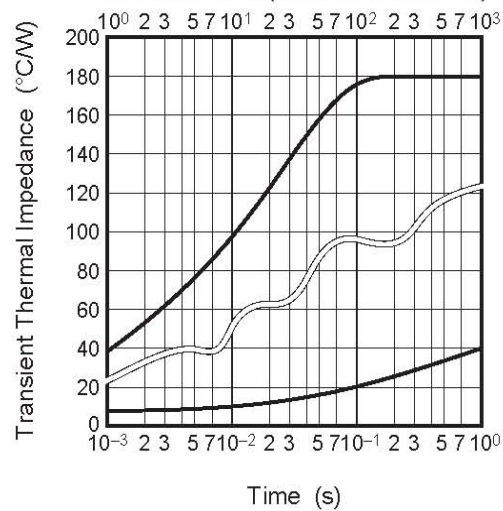
Gate Trigger Current vs. Junction Temperature



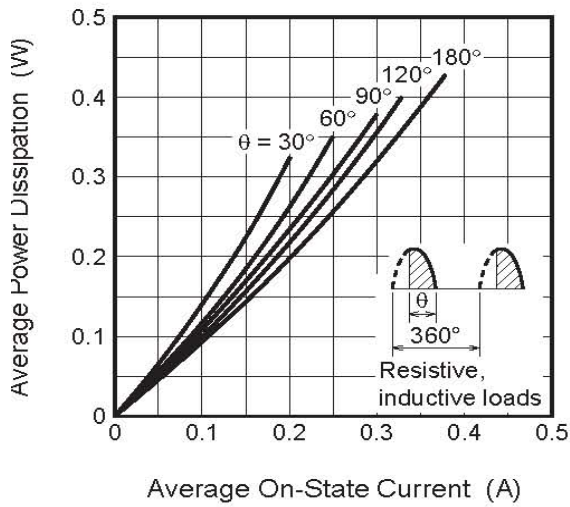
Gate Trigger Voltage vs. Junction Temperature



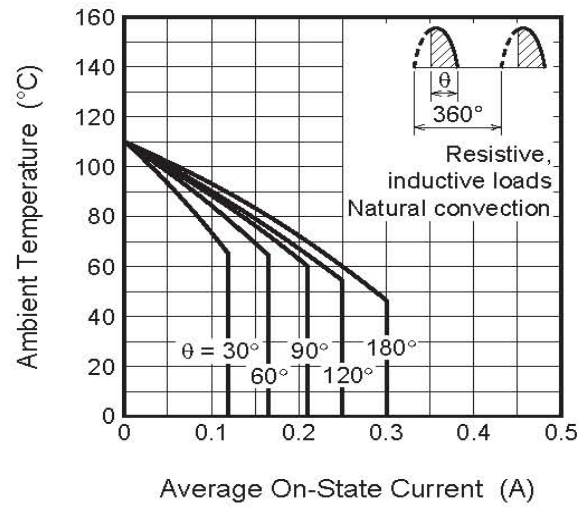
Maximum Transient Thermal Impedance Characteristics (Junction to ambient)



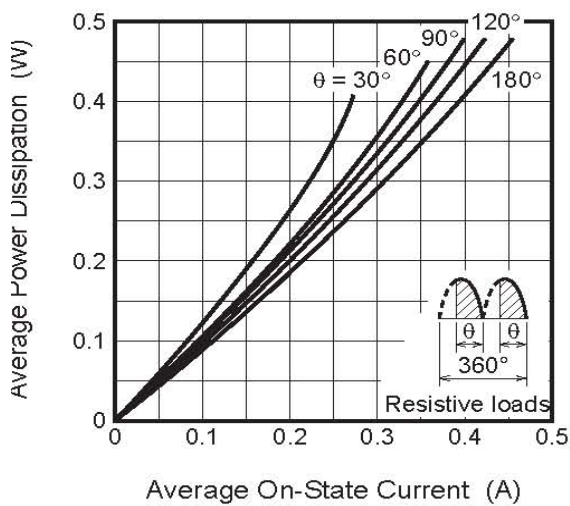
Maximum Average Power Dissipation
(Single-Phase Half Wave)



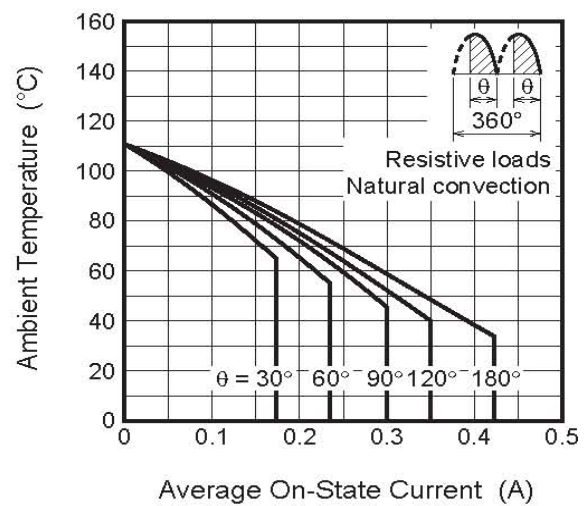
Allowable Ambient Temperature vs.
Average On-State Current
(Single-Phase Half Wave)



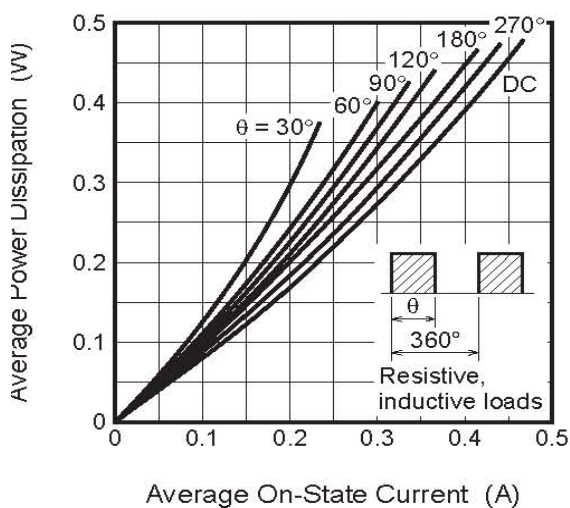
Maximum Average Power Dissipation
(Single-Phase Full Wave)



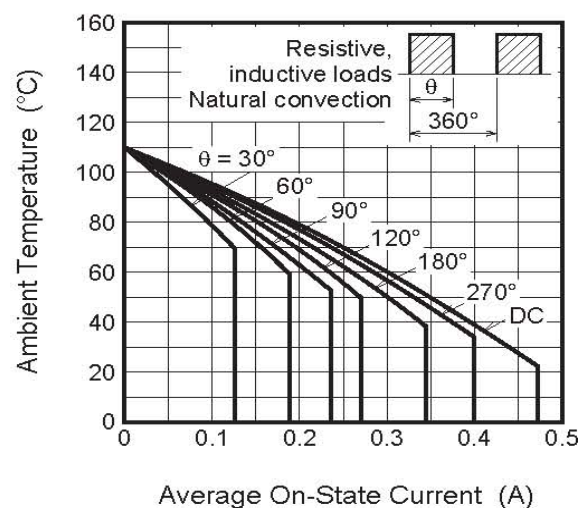
Allowable Ambient Temperature vs.
Average On-State Current
(Single-Phase Full Wave)



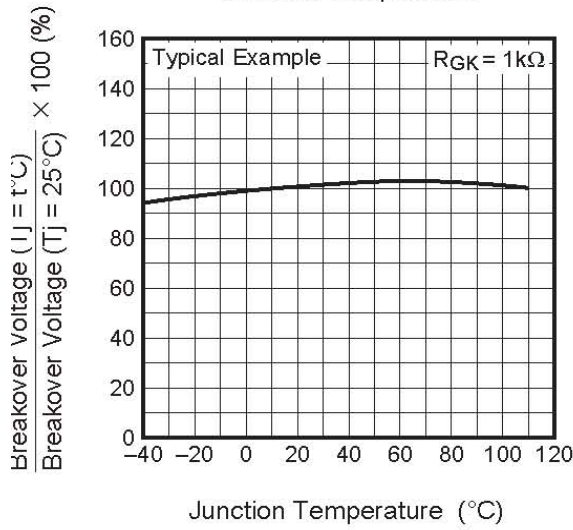
Maximum Average Power Dissipation
(Rectangular Wave)



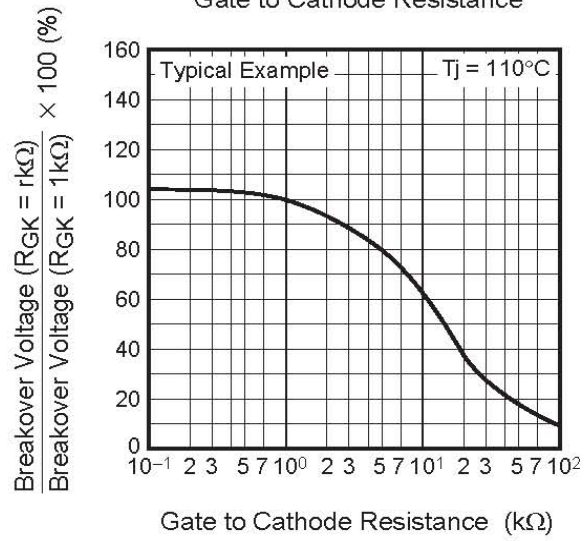
Allowable Ambient Temperature vs.
Average On-State Current
(Rectangular Wave)



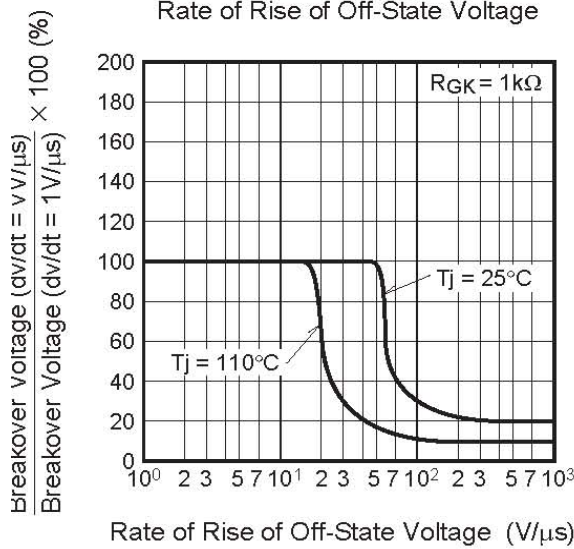
Breakover Voltage vs. Junction Temperature



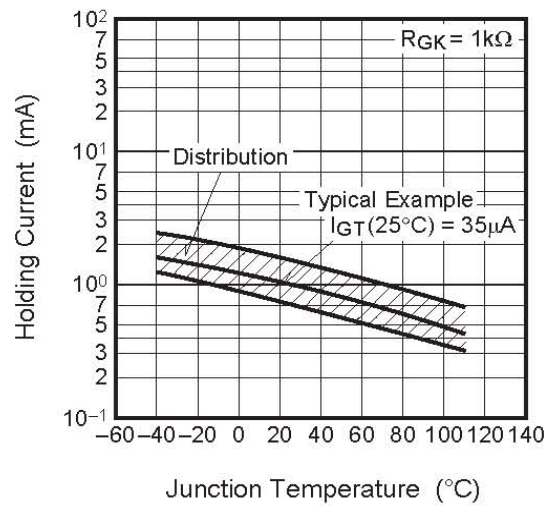
Breakover Voltage vs. Gate to Cathode Resistance



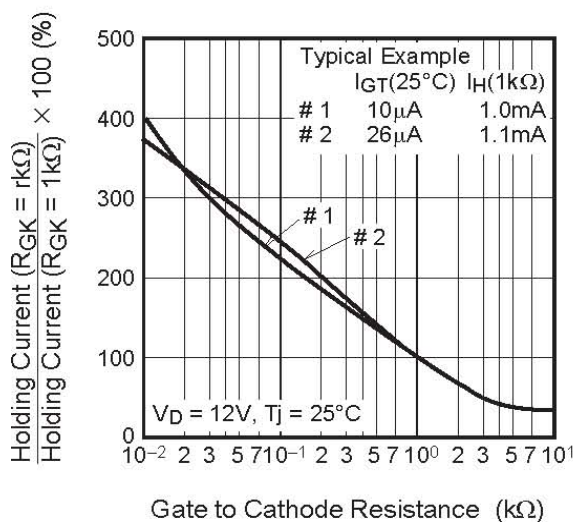
Breakover Voltage vs. Rate of Rise of Off-State Voltage



Holding Current vs. Junction Temperature



Holding Current vs. Gate to Cathode Resistance



Repetitive Peak Reverse Voltage vs. Junction Temperature

