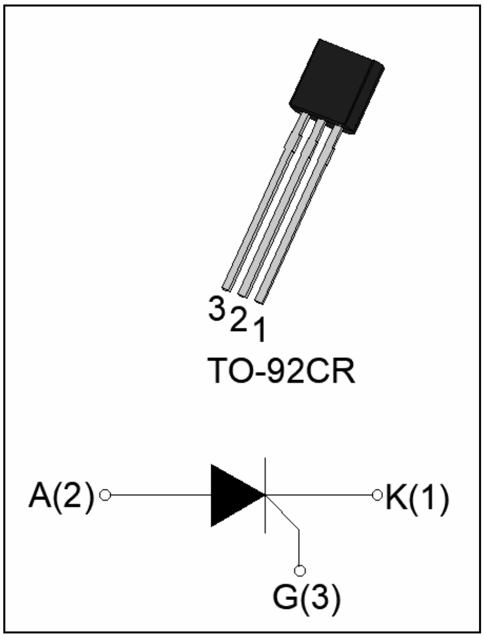
CR03AM-16 1.25A Sensitive SCR

Rev.A.2.2

^ Z/Wd/KEW

The CR03AM-16 SCR provides high dV/dt rate with strong resistance to electromagnetic interface. It is especially recommended for use on residual current circuit breaker, straight hair, igniter etc. Package TO-92CR is RoHS compliant.



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Symbol	Value	Unit
$I_{T(RMS)}$	1.25	A
V_{DRM} /V_{RRM}	1250	V
I_{GT}	≤200	μA

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Parameter	**Symbol**	**Value**	**Unit**
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-110	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	1250	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1250	V
Average on-state current (T_C 042)	$I_{T(AV)}$	0.8	A
RMS on-state current (T_C 042)	$I_{T(RMS)}$	1.25	A
Non repetitive surge peak on-state current (t_p=10ms , T_j=25)	I_{TSM}	25	A
Non repetitive surge peak on-state current (t_p=8.3ms , T_j=25)		28	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	3.1	A^2s
Critical rate of rise of on-state current (I_G=2 hI$_{GT}$, f=100Hz , T_j=110)	dI/dt	100	A/μs
Peak gate current (t_p=20μs, T_j=110)	I_{GM}	1.2	A
Average gate power dissipation (T_j=110)	$P_{G(AV)}$	0.2	W

Peak gate power	P_{GM}	2	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	1	kV

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Symbol	Test Condition	Value			Unit
		MIN.	**TYP.**	**MAX.**	
I_{GT}	V_D=12V R_L=33Ω	-	50	200	µA
V_{GT}		-	0.6	0.8	V
V_{GD}	V_D=V_{DRM} T_j=110	0.2	-	-	V
I_L	I_G=1.2 I_{GT}	-	-	5	mA
I_H	I_T=0.05A	-	-	4	mA
dV/dt	V_D=800V T_j=110 R_{GK}=1kΩ	200	-	-	V/µs
	V_D=800V T_j=110 R_{GK}=220Ω	1000	-	-	
t_{on}	I_G=10mA I_A=20mA I_R=2mA T_j=25	-	2	-	µs
t_{off}		-	50	-	µs

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Symbol	Parameter	Value(MAX.)	Unit
V_{TM}	I_T=2A t_p=380µs T_j=25 jM ·þ ‚À 0 @	v €Đ `M3P € 1 .3 S"_	V

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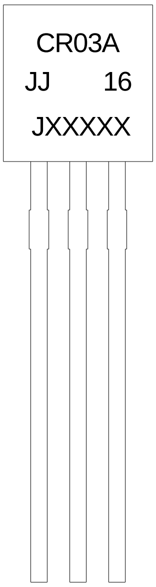

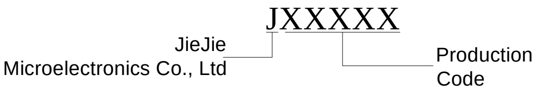

ximum power dissipation versus

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FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<10ms, and corresponding value of I^2t (dI/dt<100A/μs)

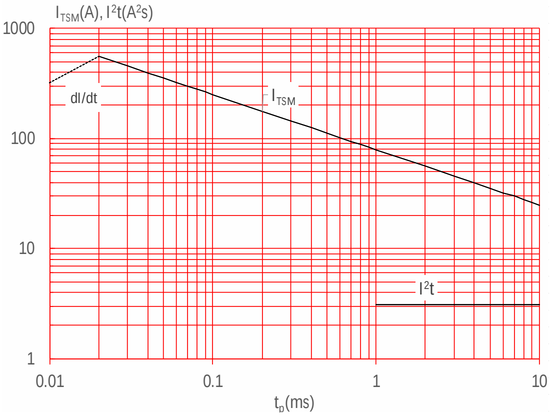


FIG.6: Relative variations of gate triggercurrent, holding current and latching current versus junction temperature

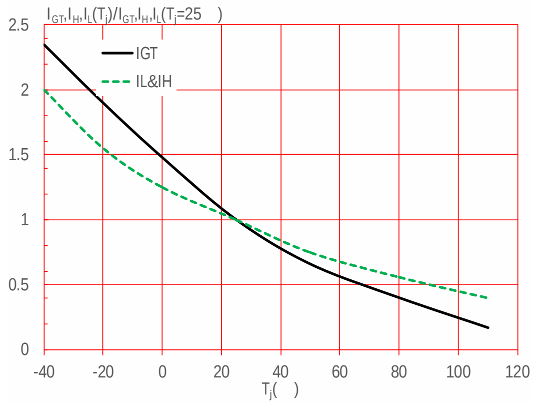
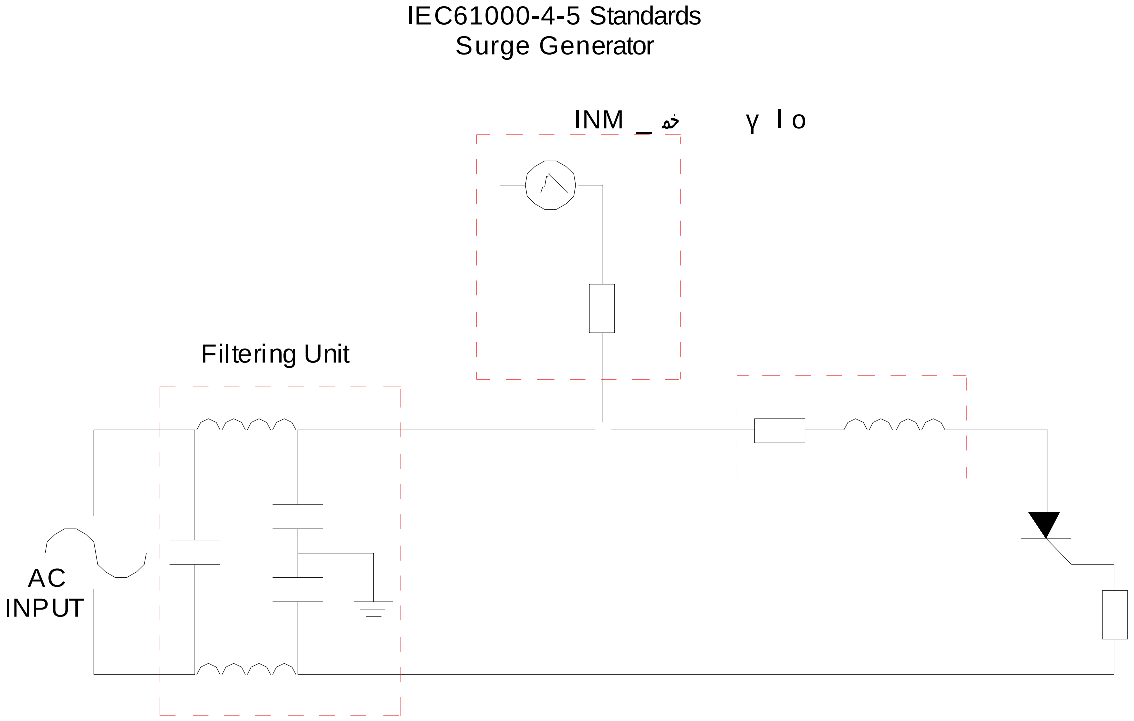


FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards.



KZ Z/E' /E&KZD d/KE

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(μA)	Package	Base qty. (pcs)	Delivery mode
CR03AM-16	**1250**	**≤200**	**TO-92CR**	**1,000**	**Bulk Pack**
CR03AM-16-TR				**2,000**	**Tape & Reel**