

# MSKSEMI

SEMICONDUCTOR



ESD



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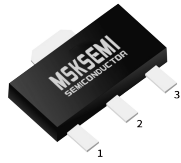
GDT



PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)



SOT-89

- 1.KATHODE
- 2.ANODE
- 3.GATE

**FEATURES**

Current- $I_{GT}$ : 200  $\mu$ A

$I_{TRMS}$ : 0.8 A

$V_{RRM}/V_{DRM}$ : MCR100-6/MS: 400 V

MCR100-8/MS: 600 V

Operating and storage junction temperature range

$T_J, T_{stg}$ : -55°C to +150°C

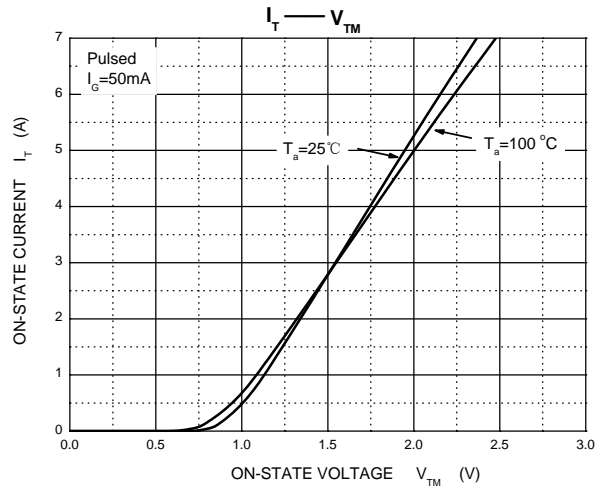
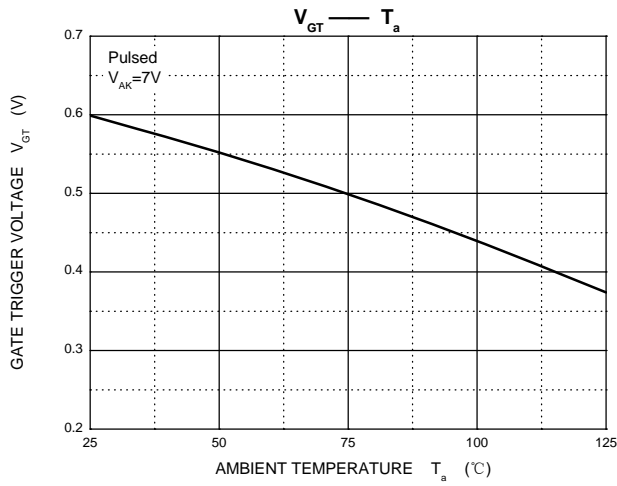
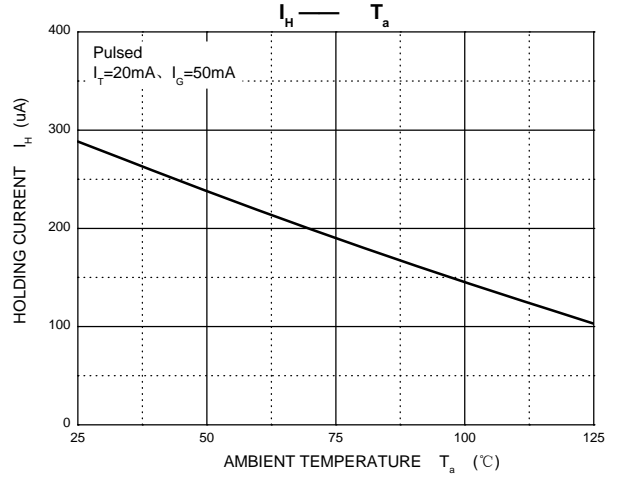
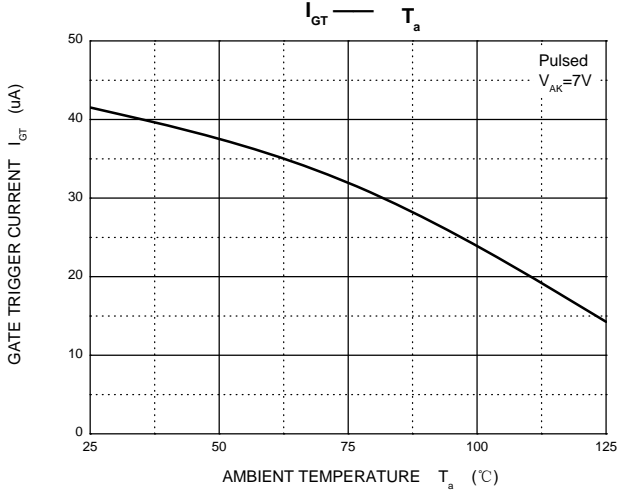


**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

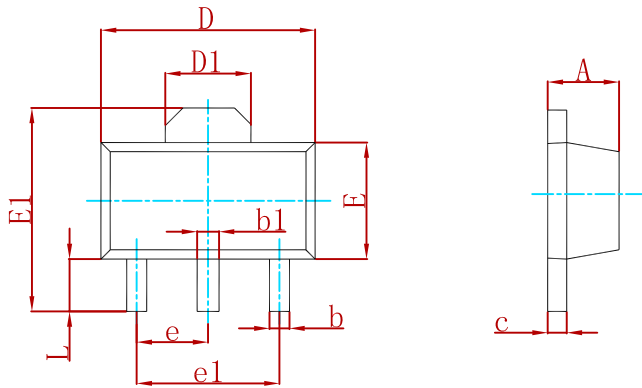
Parameter	Symbol	Test conditions	Min	Max	Unit	
On state voltage	$V_{TM}^*$	$I_{TM}=1A$		1.7	V	
Gate trigger voltage	$V_{GT}$	$V_{AK}=7V$		0.8	V	
Peak Repetitive forward and reverse blocking voltage <b>MCR100-6</b> <b>MCR100-8</b>	$V_{DRM}$ AND $V_{RRM}$	$I_{DRM}= 10 \mu A$	400 600		V	
Peak forward or reverse blocking Current	$I_{DRM}$ $I_{RRM}$	$V_{AK}= \text{Rated}$ $V_{DRM}$ or $V_{RRM}$		10	$\mu A$	
Holding current	$I_H$	$I_{HL}= 20mA, V_{AK} = 7V$		5	mA	
Gate trigger current	$I_{GT}$	$V_{AK}=7V$	A2	5	15	$\mu A$
			A1	15	30	$\mu A$
			A	30	80	$\mu A$
			B	80	200	$\mu A$

\* Forward current applied for 1 ms maximum duration, duty cycle  $\leq 1\%$ .

**Typical Characteristics**

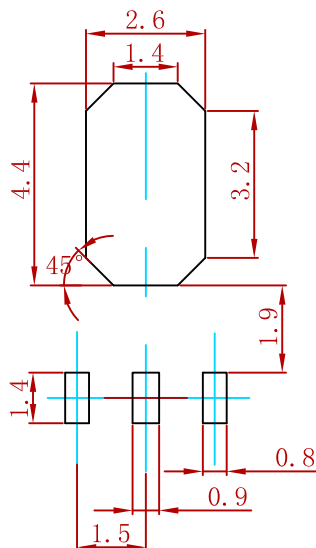


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

**Suggested Pad Layout**



Note:  
 1. Controlling dimension: in millimeters.  
 2. General tolerance:  $\pm 0.05\text{mm}$ .  
 3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
MCR100-X/MS	SOT-89	1000

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