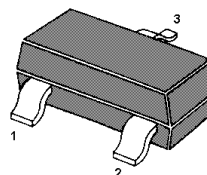
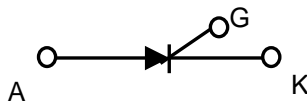


# MMBT-CR100-6

SOT-23

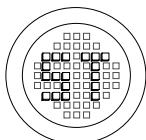


1.Cathode 2.Gate 3.Anode

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

Rating	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage <sup>1)</sup> ( $T_J=25$ to $125^\circ\text{C}$ , $R_{GK}=1\text{K}\Omega$ )	$V_{\text{DRM}}$ and $V_{\text{RRM}}$	400	V
Forward Current RMS (All Conduction Angles)	$I_{\text{T(RMS)}}$	0.6	A
Peak Forward Surge Current, (1/2 Cycle, Sine Wave, 60Hz)	$I_{\text{TSM}}$	6	A
Circuit Fusing ( $t=8.3\text{ms}$ )	$I^2t$	0.415	$\text{A}^2\text{s}$
Peak Gate Power - Forward	$P_{\text{GM}}$	0.1	W
Average Gate Power - Forward	$P_{\text{GF(AV)}}$	0.01	W
Peak Gate Current - Forward ( $300\mu\text{s}$ , $120\text{PPS}$ )	$I_{\text{GFM}}$	1	A
Peak Gate Voltage - Reverse	$V_{\text{GRM}}$	5	V
Operating Junction Temperature Range @ Rated $V_{\text{RRM}}$ and $V_{\text{DRM}}$	$T_J$	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-40 to +150	$^\circ\text{C}$

<sup>1)</sup> Ratings apply for zero or negative gate voltage; however, positive gate voltage shall not be applied concurrent with negative potential on the anode.



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**РАДИОТЕХ-ТРЕЙД**

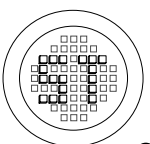
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# MMBT-CR100-6

## Characteristics (T<sub>c</sub>=25°C, R<sub>GK</sub>=1KΩ unless otherwise noted)

	Symbol	Min	Max	Unit
Peak Forward or Reverse Blocking Current (V <sub>AK</sub> =Rated V <sub>DRM</sub> or V <sub>RRM</sub> )	I <sub>DRM</sub> , I <sub>RRM</sub>	-	20	μA
Forward "On" Voltage (I <sub>TM</sub> =0.6A Peak @T <sub>A</sub> =25°C)	V <sub>TM</sub>	-	1.7	V
Gate Trigger Current(Continuous dc) <sup>1)</sup> (Anode Voltage=12V, R <sub>L</sub> =100 Ohms)	I <sub>GT</sub>	-	200	μA
Gate Trigger Voltage(Continuous dc) (Anode Voltage=12V, R <sub>L</sub> =100 Ohms) (Anode Voltage=Rated V <sub>DRM</sub> , R <sub>L</sub> =100 Ohms)	V <sub>GT</sub>	-	0.7	V
Holding Current (Anode Voltage=12V)	I <sub>H</sub>	-	20	mA

<sup>1)</sup> R<sub>GK</sub> current is not included in measurement.



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001  
Certificate No. 7116



ISO 9001 : 2000  
Certificate No. 5555-1986-A2-RSC-Pak

Dated : 20/10/2005