

CR05BS-8

Thyristor

Low Power Use

R07DS0136EJ0300

(Previous: REJ03G0347-0200)

Rev.3.00

Oct 13, 2010

Features

 $\begin{array}{lll} \bullet & I_{T \, (AV)} : 0.1 \; A \\ \bullet & V_{DRM} : 400 \; V \\ \bullet & I_{GT} : 100 \; \mu A \end{array}$

• Non-Insulated Type

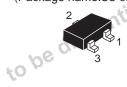
- Planar Passivation Type
- Surface Mounted type
- Completed Pb free product

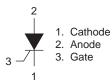
Outline

RENESAS Package code: PLSP0003ZB-A (Package name:MPAK)



RENESAS Package code: PLSP0003ZA-A (Package name:SC-59)





Applications

Strobe flasher

Maximum Ratings

Parameter	Symbol	Voltage class	Unit	
Farameter	Symbol	8	Oilit	
Repetitive peak reverse voltage	V_{RRM}	400	V	
Non-repetitive peak reverse voltage	V _{RSM}	500	V	
DC reverse voltage	$V_{R(DC)}$	320	V	
Repetitive peak off-state voltage ^{Note1}	V_{DRM}	400	V	
DC off-state voltage ^{Note1}	V _{D(DC)}	320	V	

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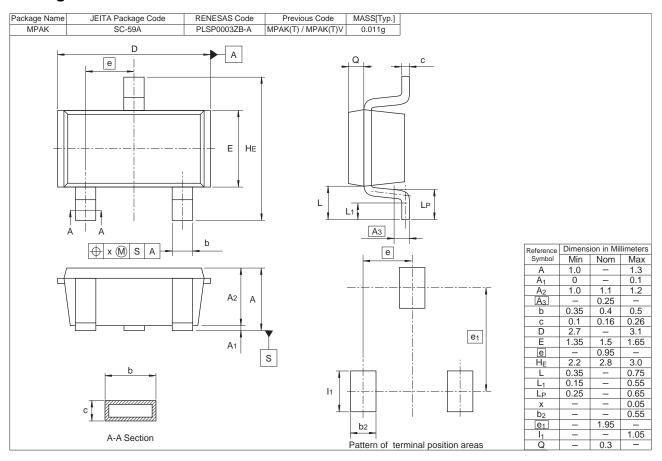
Parameter	Symbol	Ratings	Unit	Conditions
RMS on-state current	I _{T (RMS)}	0.15	Α	
Average on-state current	I _{T (AV)}	0.1	А	Commercial frequency, sine half wave 180° conduction, Ta = 55°C
Surge on-state current	I _{TSM}	10	А	60Hz sine half wave 1 full cycle, peak value, non-repetitive
I ² t for fusing	l ² t	0.4	A ² s	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current
Peak gate power dissipation	P_{GM}	0.1	W	
Average gate power dissipation	P _{G (AV)}	0.01	W	
Peak gate forward voltage	V_{FGM}	6	V	
Peak gate reverse voltage	V_{RGM}	6	V	
Peak gate forward current	I _{FGM}	0.1	Α	
Junction temperature	Tj	- 40 to +125	°C	
Storage temperature	Tstg	- 40 to +125	°C	
Mass	_	11	mg	Typical value

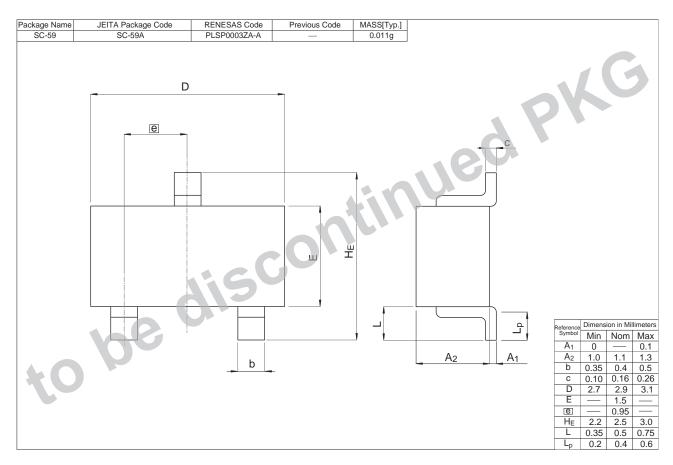
Notes: 1. With gate to cathode resistance R_{GK} = 1 k Ω .

Electrical Characteristics

Parameter	Symbol	Min.	Тур.	Max.	Unit	Test conditions
Repetitive peak reverse current	I _{RRM}	_	_	0.1	mA	Tj = 125°C, V _{RRM} applied
Repetitive peak off-state current	I _{DRM}	_	_	0.1	mA	Tj = 125°C, V _{DRM} applied,
						$R_{GK} = 1 k\Omega$
On-state voltage	V_{TM}	_	_	1.9	V	Ta = 25°C, I _{TM} = 1.5 A,
						instantaneous value
Gate trigger voltage	V_{GT}	_	_	0.8	V	$Tj = 25$ °C, $V_D = 6$ V, $I_T = 0.1$ A
Gate non-trigger voltage	$V_{\sf GD}$	0.2	_	_	V	$Tj = 125$ °C, $V_D = 1/2 V_{DRM}$,
						$R_{GK} = 1 k\Omega$
Gate trigger current	I _{GT}	20	_	100	μΑ	$Tj = 25$ °C, $V_D = 6$ V, $I_T = 0.1$ A
Holding current	I _H	_	_	3.0	mA	$Tj = 25^{\circ}C, V_D = 12 V,$
						$R_{GK} = 1 k\Omega$
Thermal resistance	R _{th (j-a)}	_	_	500	°C/W	Junction to ambient

Package Dimensions





Ordering Information

Orderable Part Number	Packing	Quantity	Remark
CR05BS-8-ET13#F10	Embossed Tape	3000 pcs.	_

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