

DE5SC4M

Schottky Barrier Diodes

40V, 5A

Feature

- SMD
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

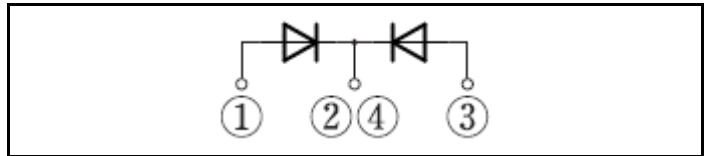
OUTLINE

Package (House Name): E-pack

Package (JEITA Code): SC-63



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-40 to 150	$^\circ\text{C}$
Junction temperature	T_j		150	$^\circ\text{C}$
Repetitive peak reverse voltage	V_{RRM}		40	V
Repetitive peak surge reverse voltage	V_{RRSM}	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, Rating for each diode $I_{F(AV)}/2$, $T_c=101^\circ\text{C}$	5	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, Rating for each diode $I_{F(AV)}/2$, $T_a=25^\circ\text{C}$, On alumina substrate	3	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=125^\circ\text{C}$	80	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10 μs , $T_j=25^\circ\text{C}$, per diode	330	W

* :See the original Specifications

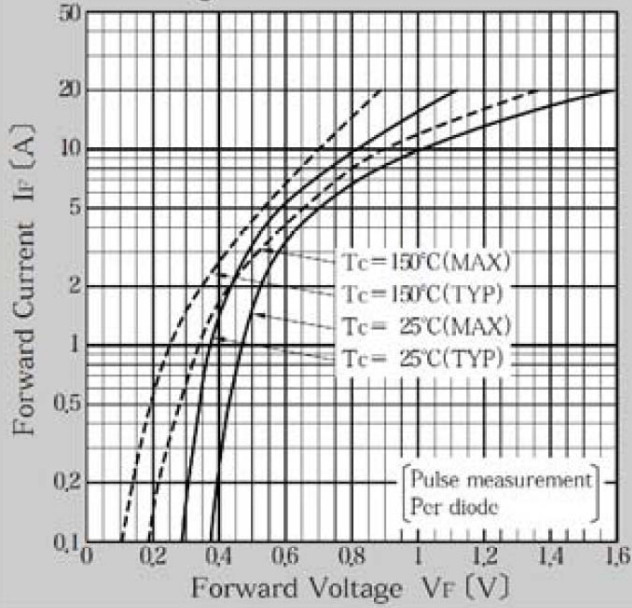
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =2.5A, Pulse measurement, per diode			0.55	V
Reverse current	I _R	V _R =40V, Pulse measurement, per diode			3.5	mA
Total capacitance	C _t	f=1MHz, V _R =10V, per diode		150		pF
Thermal resistance	R _{th(j-c)}	Junction to case			12	°C/W
Thermal resistance	R _{th(j-a)}	Junction to ambient, On alumina substrate			55	°C/W

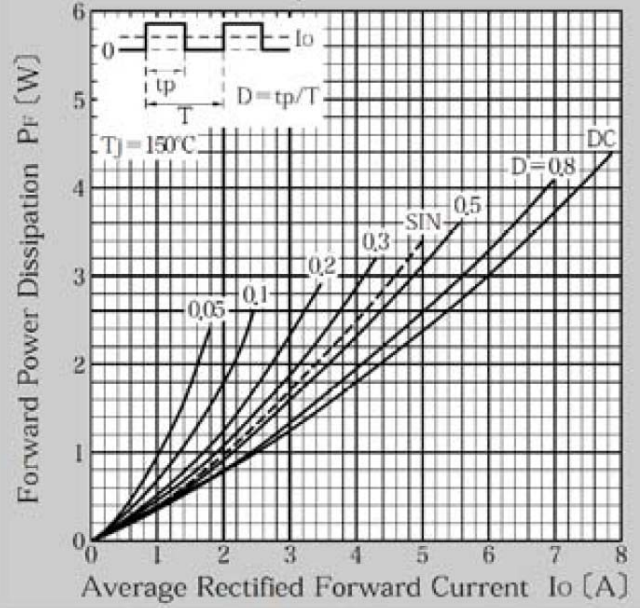
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

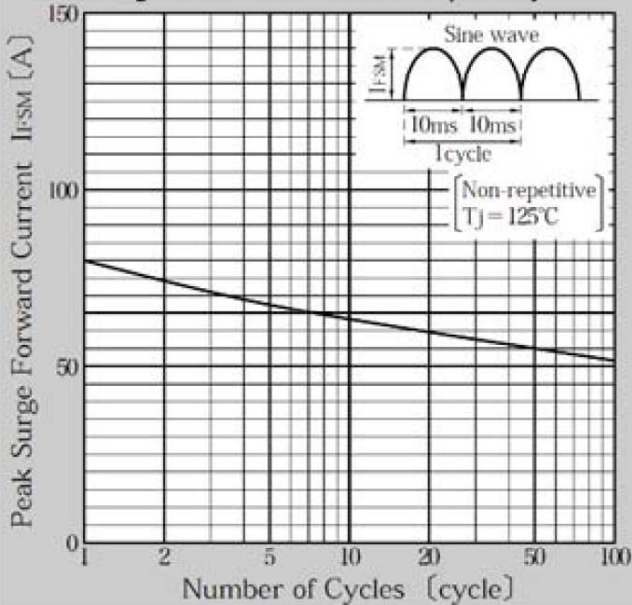
Forward Voltage



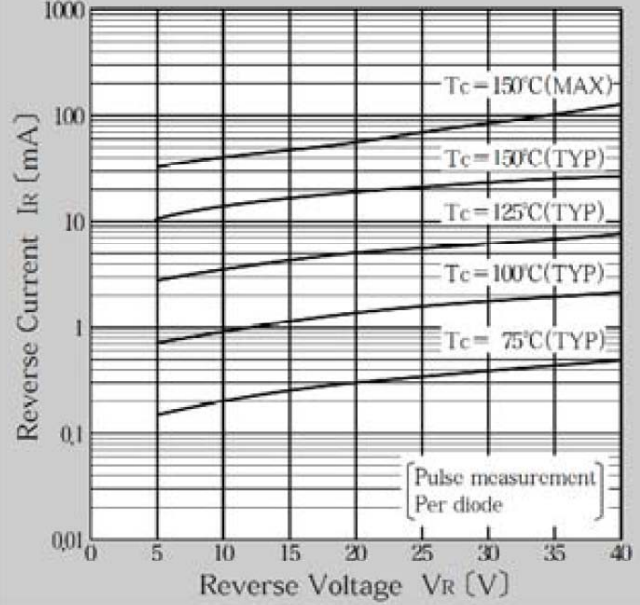
Forward Power Dissipation



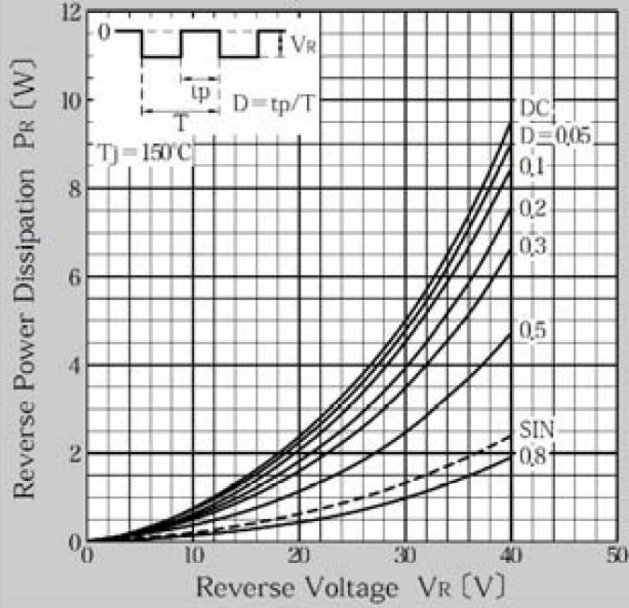
Peak Surge Forward Current Capability



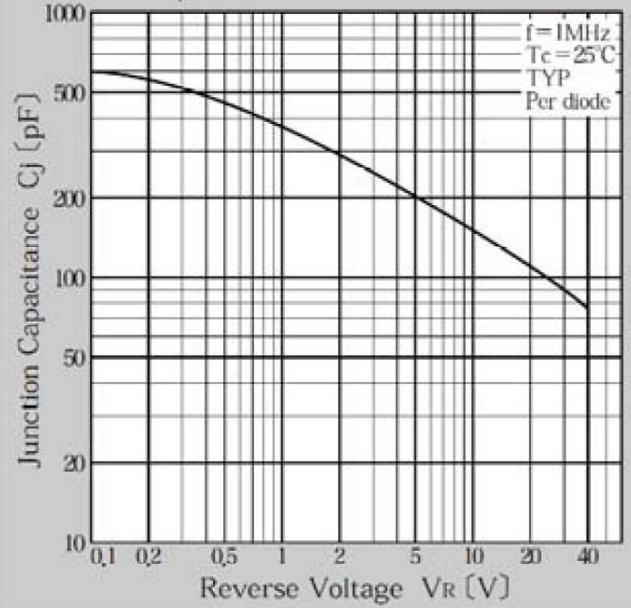
Reverse Current



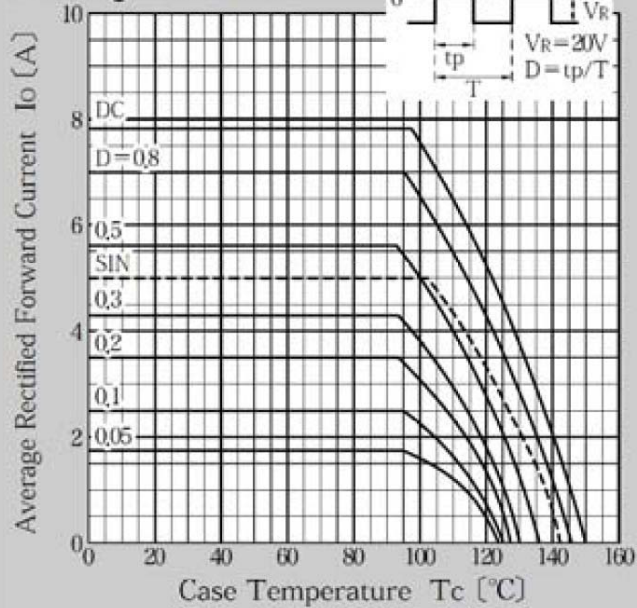
Reverse Power Dissipation



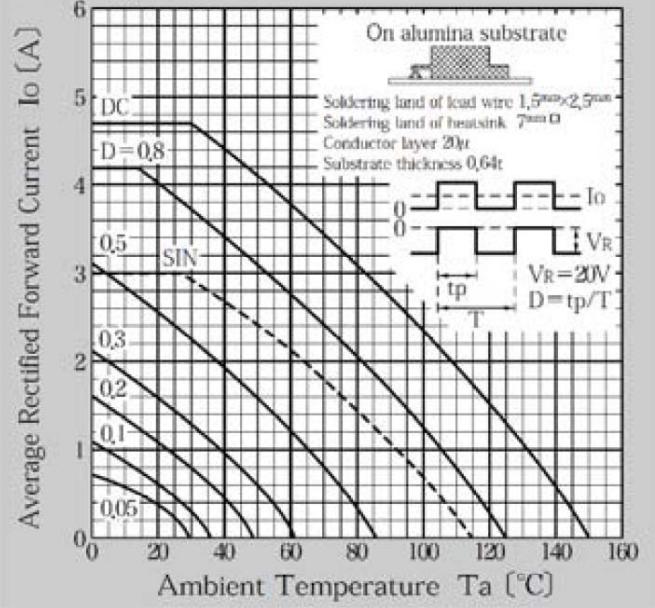
Junction Capacitance



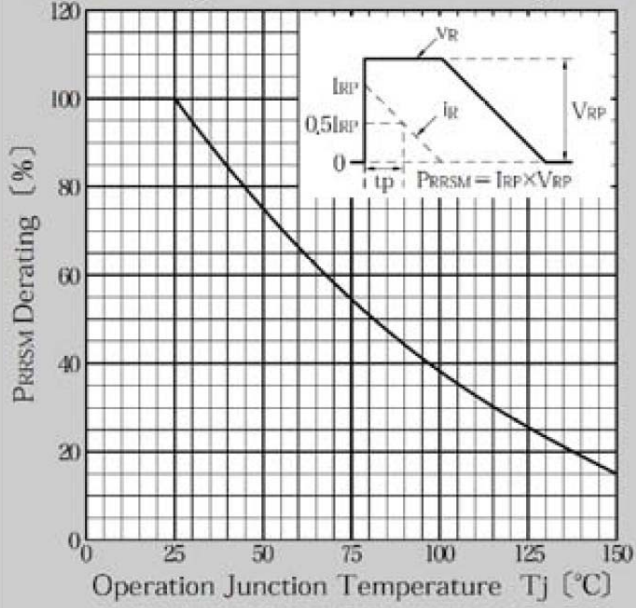
Derating Curve T_c - I_o



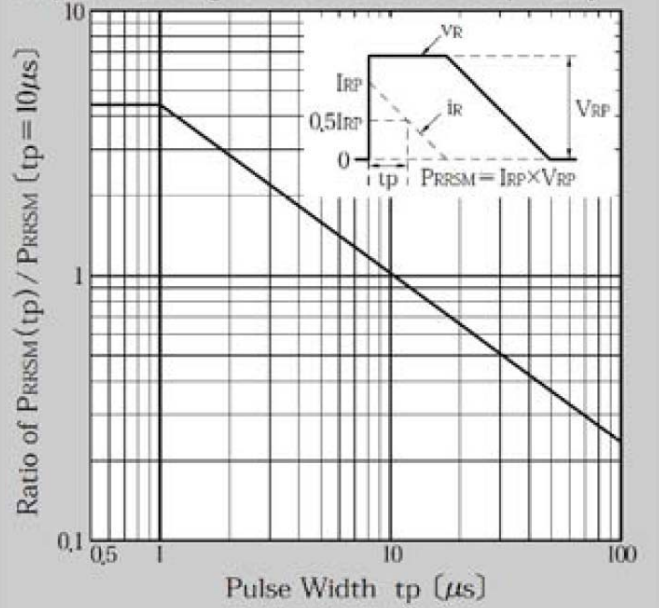
Derating Curve T_a - I_o



Repetitive Surge Reverse Power Derating Curve

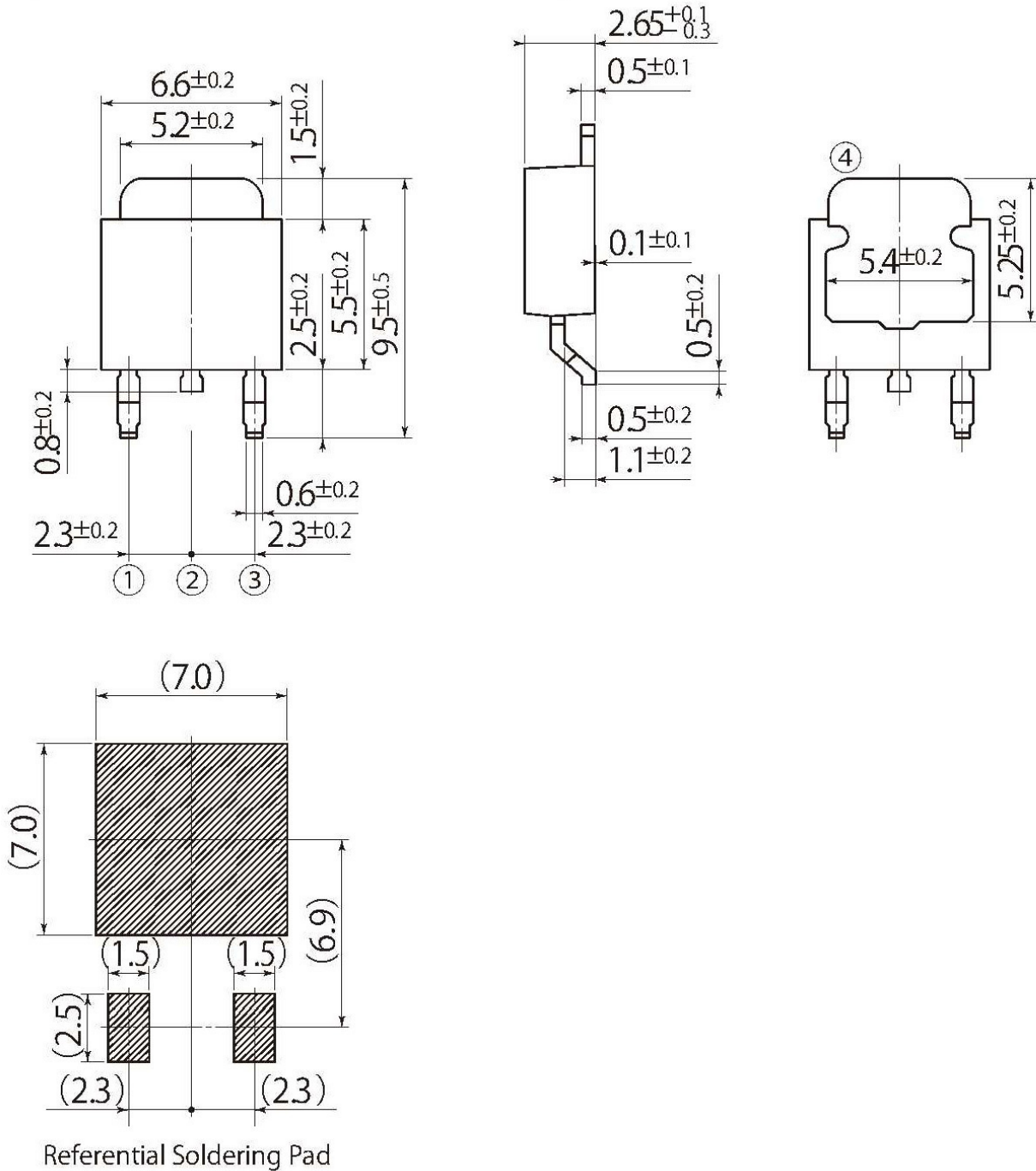


Repetitive Surge Reverse Power Capability



G1

JEDEC Code	-
JEITA Code	SC-63
House Name	E-pack



• Optimize soldering pad to the board design and soldering condition.

Notes

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