ShinDengen

DE10SC4

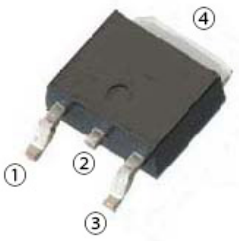
Schottky Barrier Diodes
40V, 10A

Feature

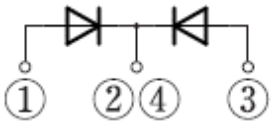
- SMD
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): E-pack
Package (JEITA Code): SC-63



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	℃
Junction temperature	Tj		150	℃
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 IF(AV)/2, Tc=132°C	10	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	100	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10μs, Tj=25°C, per diode	330	W

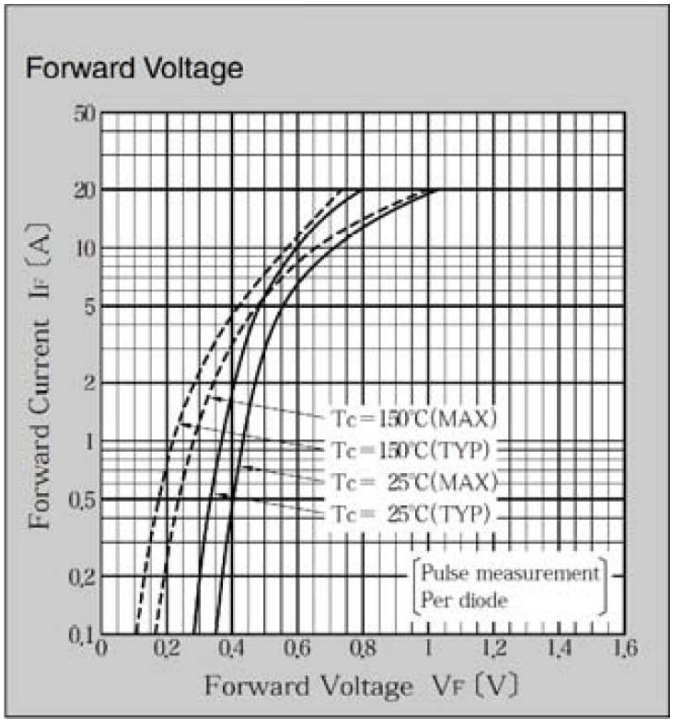
※ ：See the original Specifications

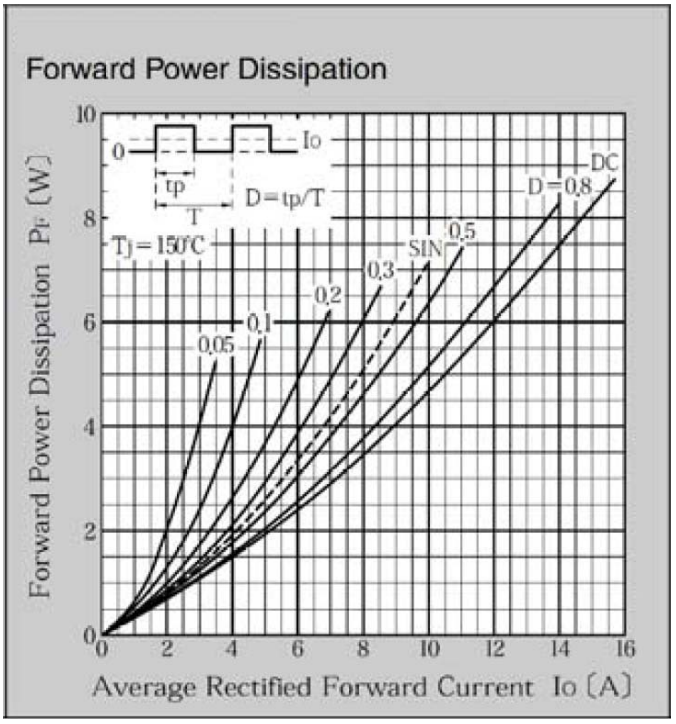
Electrical Characteristics (unless otherwise specified : Tc=25°C)

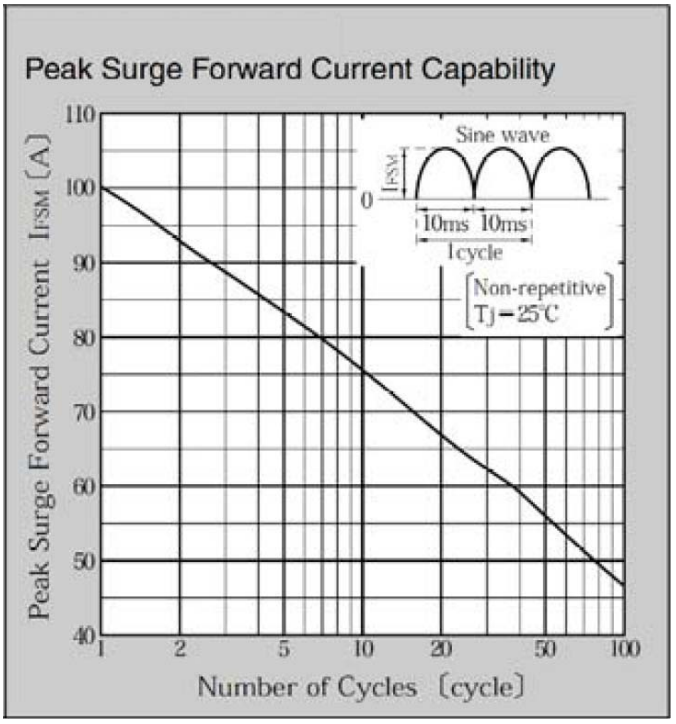
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=5A, Pulse measurement, per diode			0.55	V
Reverse current	I_R	VR=40V, Pulse measurement, per diode			3.5	mA
Total capacitance	Ct	f=1MHz, VR=10V, per diode		210		pF
Thermal resistance	Rth(j-c)	Junction to case			4	°C/W

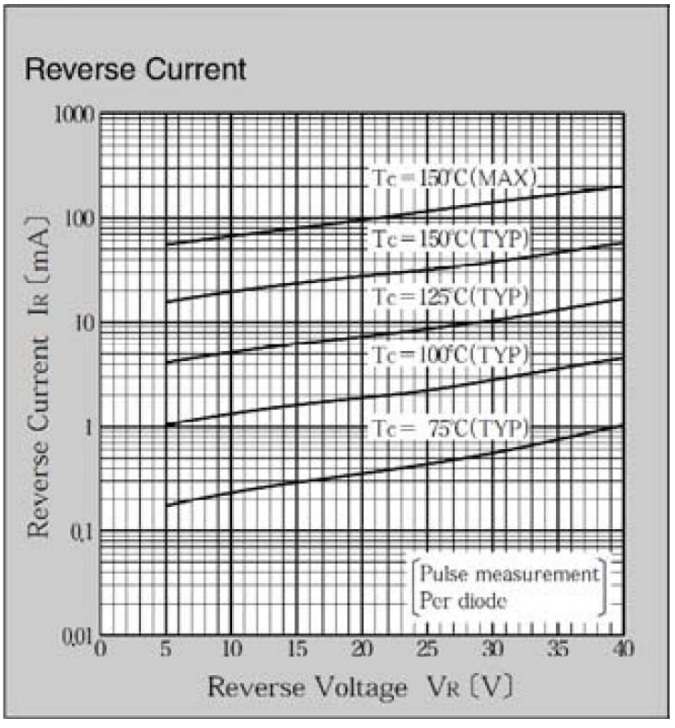
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

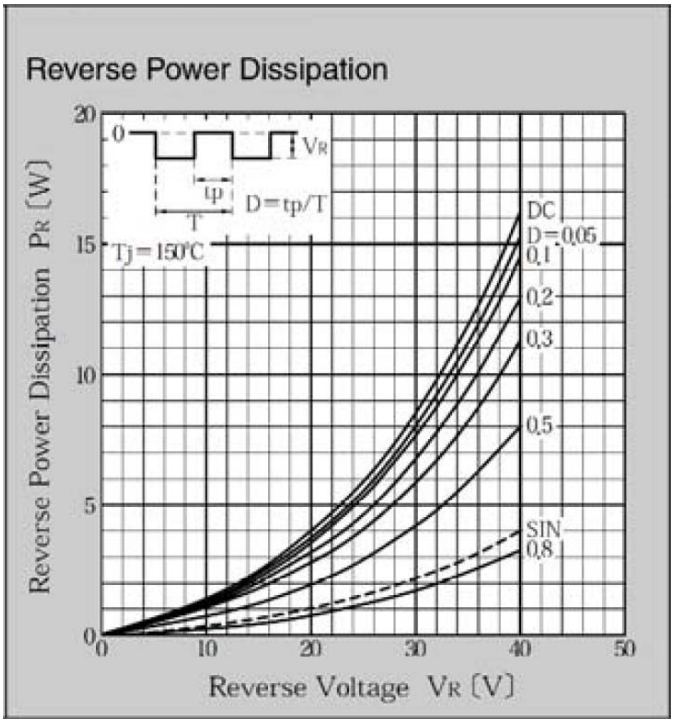




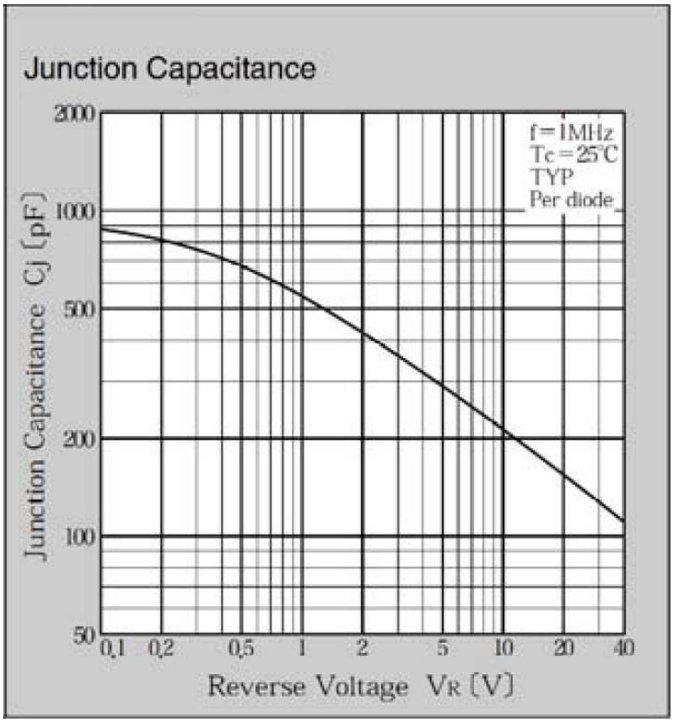




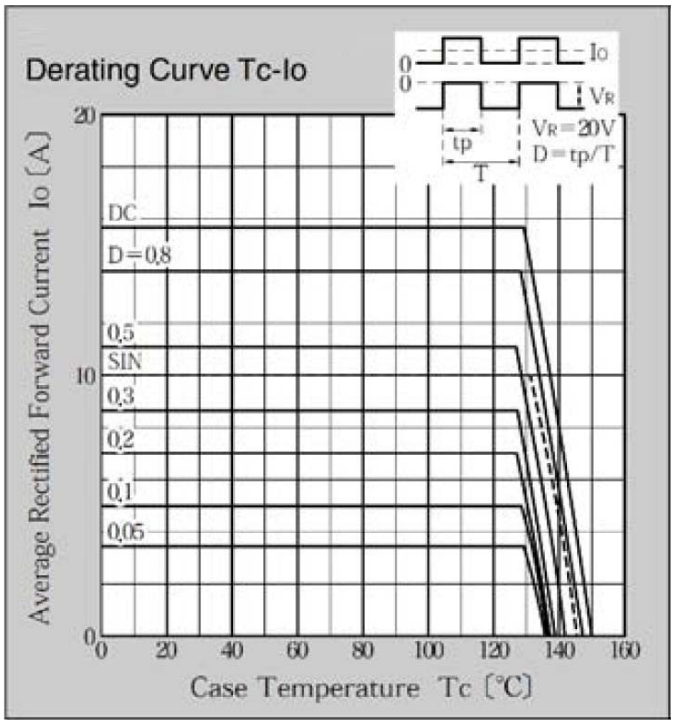
Reverse Power Dissipation



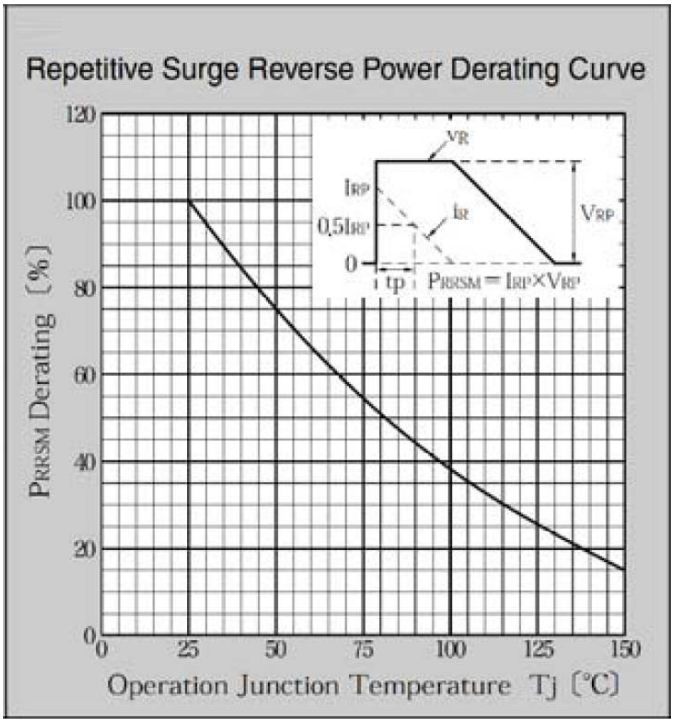
Junction Capacitance

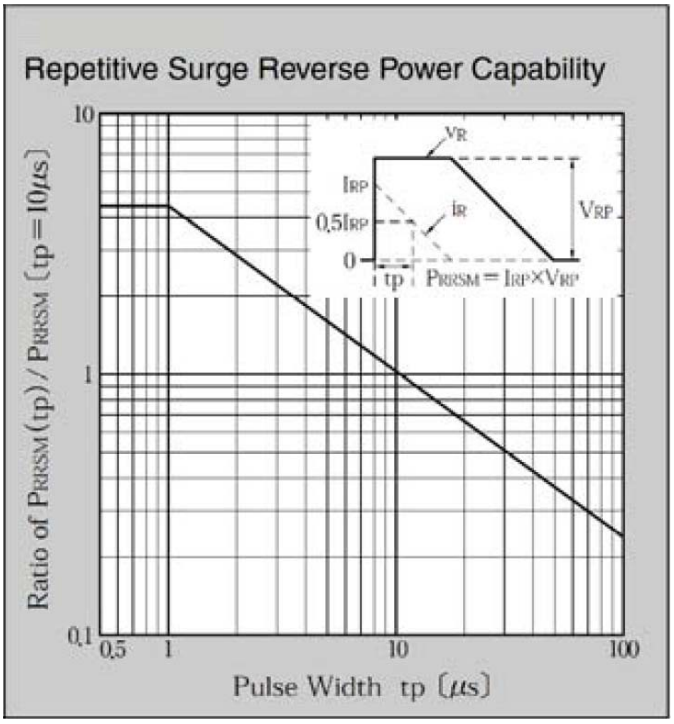


Derating Curve Tc-Io



Repetitive Surge Reverse Power Derating Curve




Repetitive Surge Reverse Power Capability
10
1
0.1
0.5
1
10
100
Ratio of PRRSM(tp) / PRRSM (tp=10μs)
Pulse Width tp (μs)
VR
IRP
0.5IRP
0
iR
VRP
tp
PRRSM = IRP×VRP

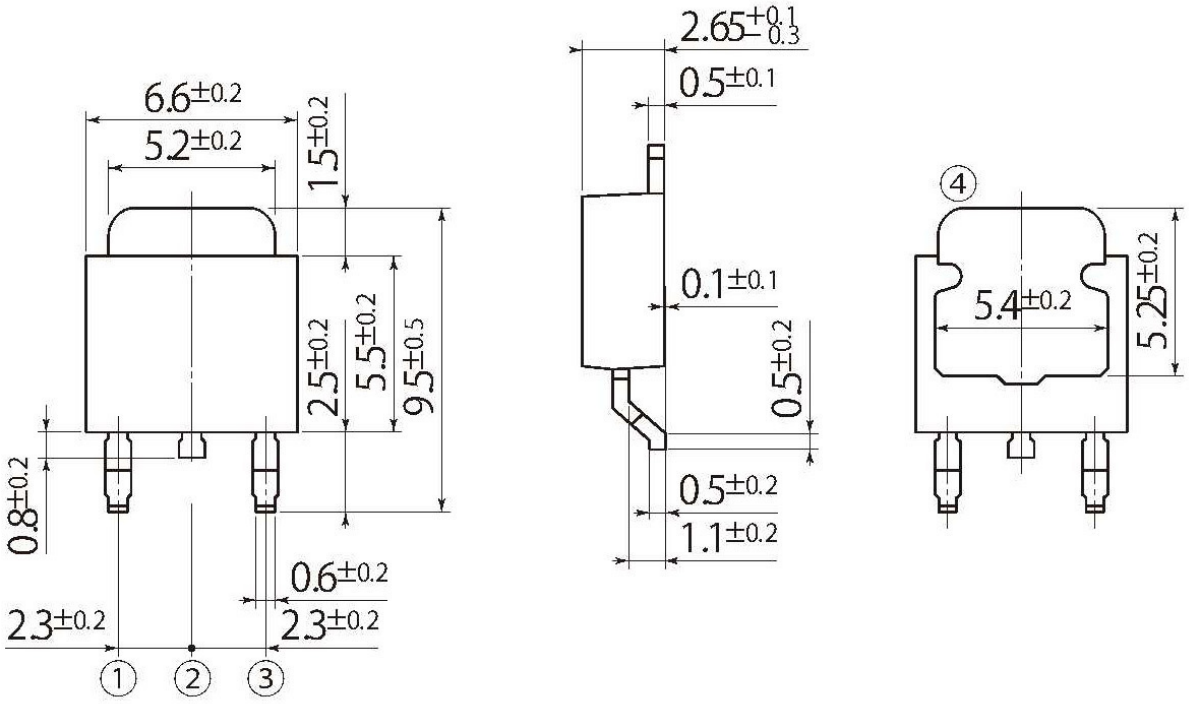
Outline Dimensions

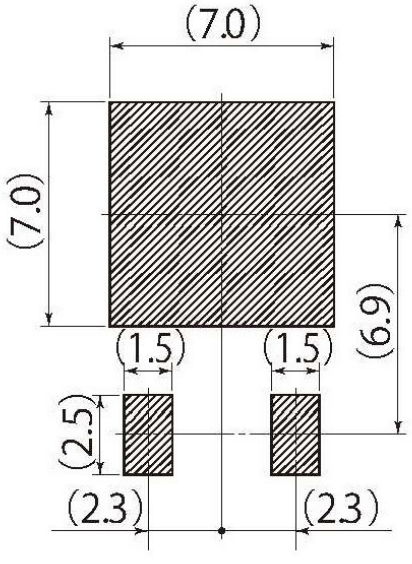
unit:mm

scale: 3/1

G1

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





Referential Soldering Pad

• Optimize soldering pad to the board design and soldering condi tion.

Notes

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