

D40FDC10ST

Schottky Barrier Diodes
100V, 40A

Feature

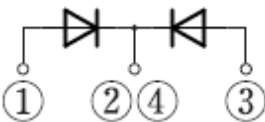
- SMD
- Low I_R
- Available for automotive use
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): FD
Package (JEITA Code): SC-83 similar



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-55 to 150	$^{\circ}\text{C}$
Junction temperature	T_j		-55 to 150	$^{\circ}\text{C}$
Repetitive peak reverse voltage	V_{RRM}		100	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Rating for each diode $I_F(AV)/2$, With heatsink, $T_c=105^{\circ}\text{C}$	40	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, $T_j=25^{\circ}\text{C}$	400	A

※ :See the original Specifications

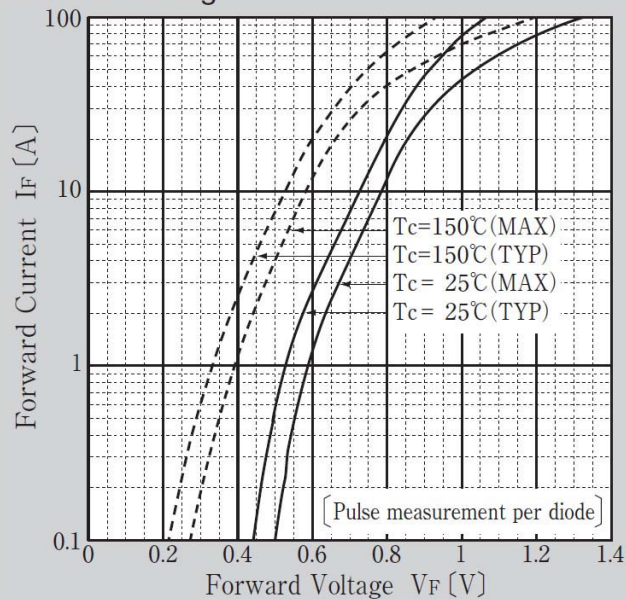
Electrical Characteristics (unless otherwise specified : $T_c=25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=20\text{A}$, Pulse measurement, per diode		0.8	0.86	V
Reverse current	I_R	$V_R=100\text{V}$, Pulse measurement, per diode			0.06	mA
Total capacitance	C_t	$f=1\text{MHz}$, $V_R=10\text{V}$, per diode		360		pF
Thermal resistance	$R_{th(j-c)}$	Junction to case, With heatsink			1.3	$^{\circ}\text{C/W}$

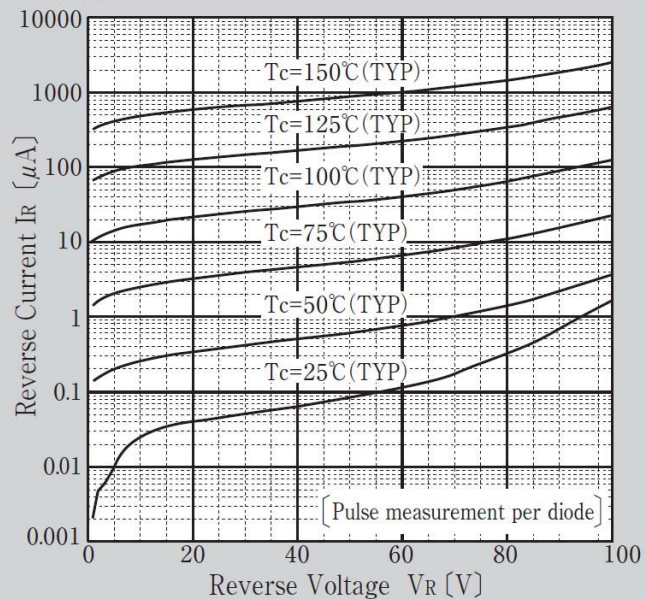
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

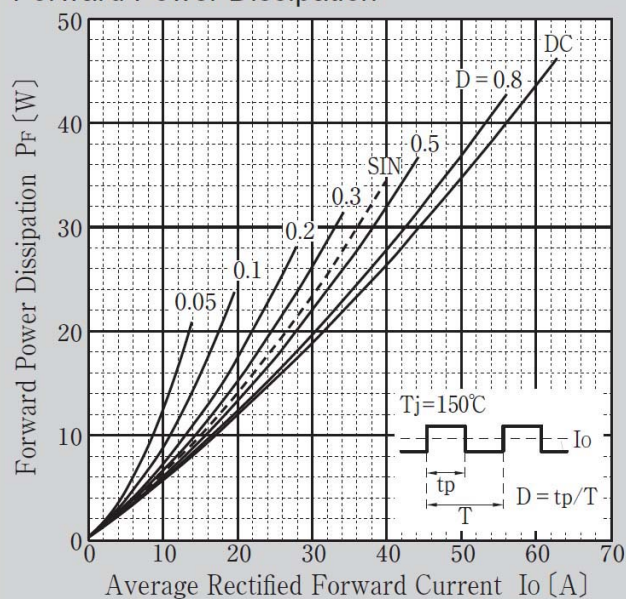
Forward Voltage



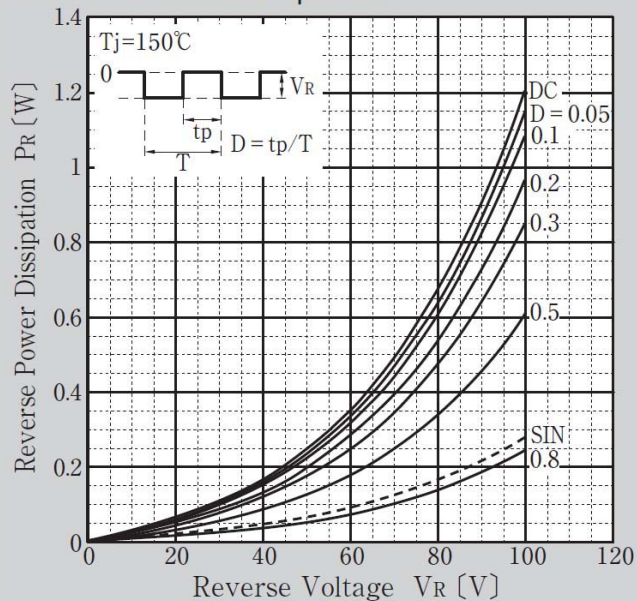
Reverse Current



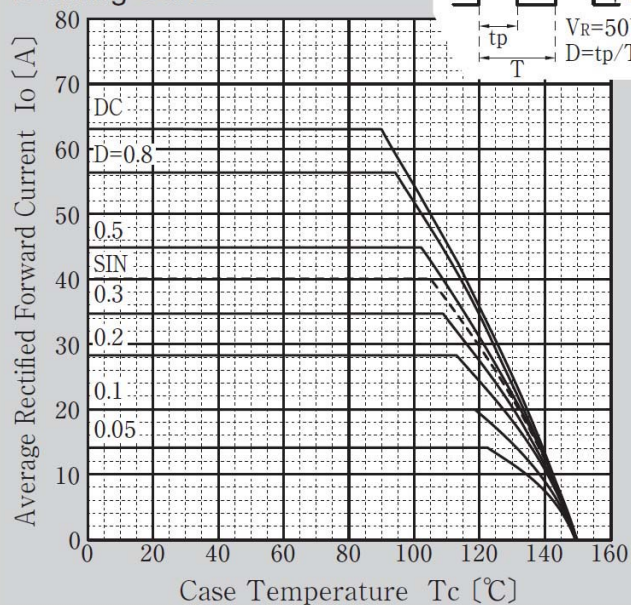
Forward Power Dissipation



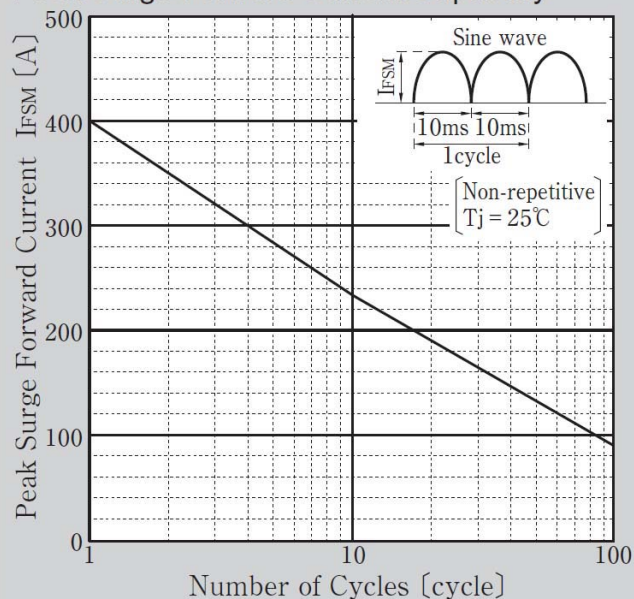
Reverse Power Dissipation



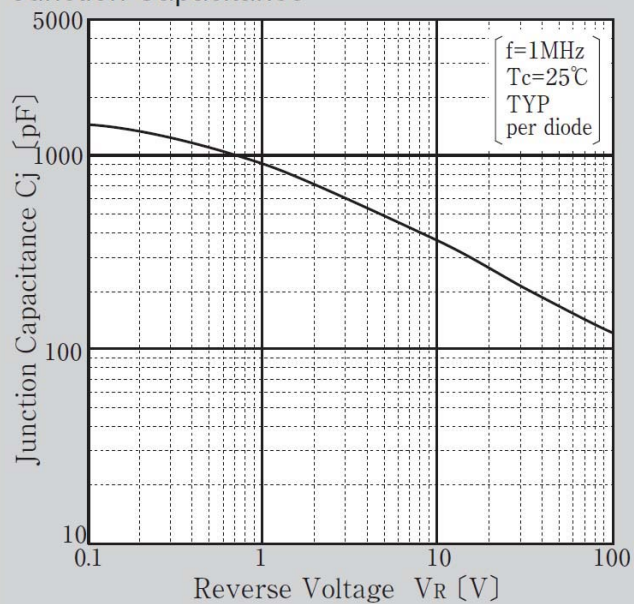
Derating Curve



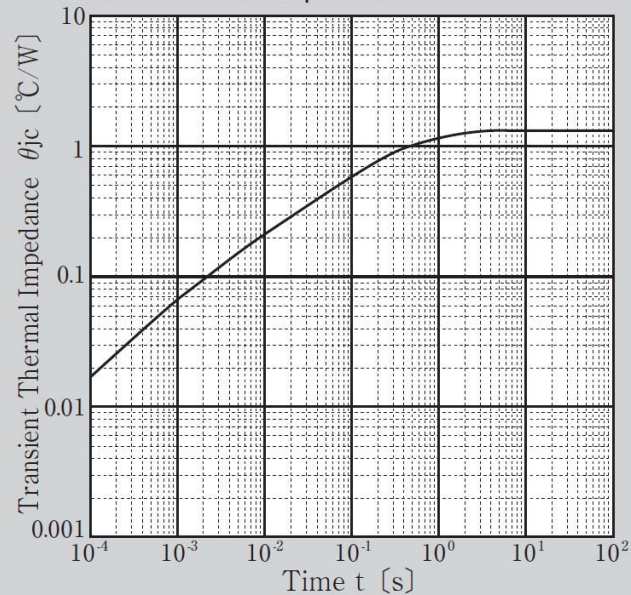
Peak Surge Forward Current Capability



Junction Capacitance

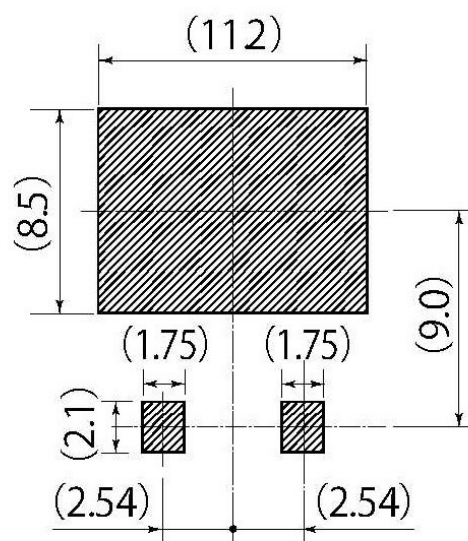
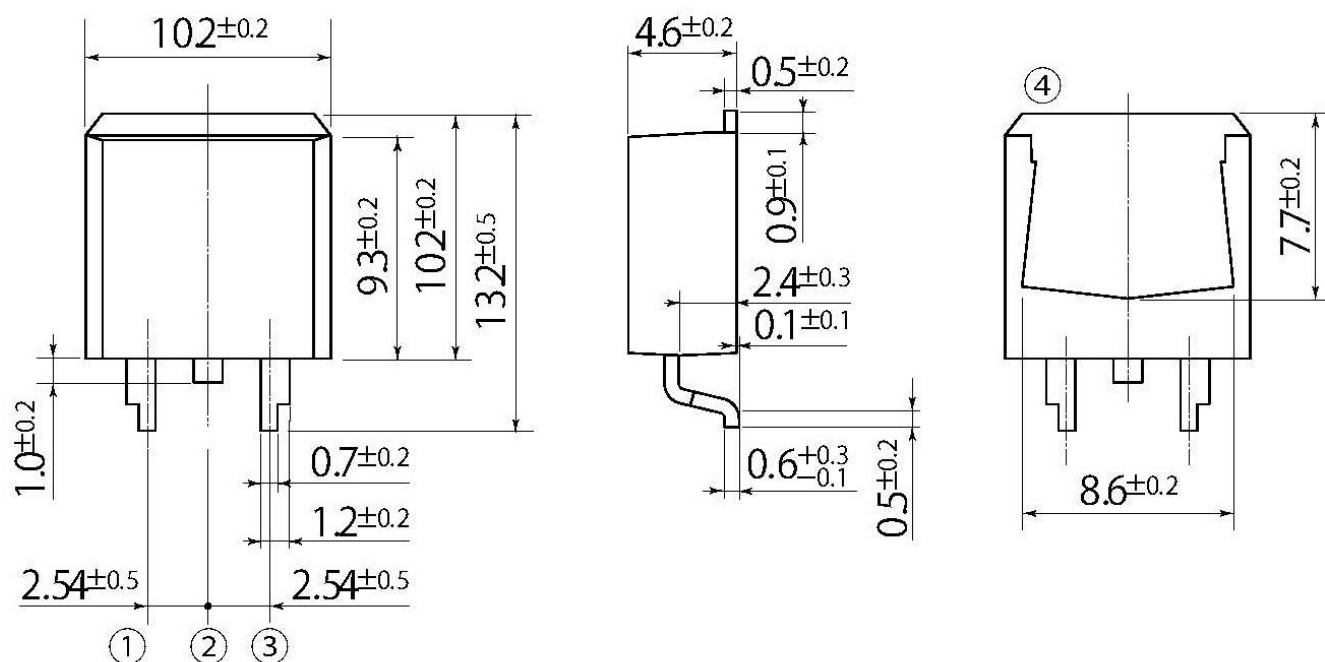


Transient Thermal Impedance



H2

JEDEC Code	—
JEITA Code	SC-83 similar
House Name	FD



Referential Soldering Pad

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

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