

DE5SC3ML**30V 5A****特長**

- SMD
- 低 $V_F=0.45V$
- PRRSM アバランシェ保証
- 小型大電流容量

Feature

- SMD
- Low $V_F=0.45V$
- PRRSM Rating
- High I_o Rating・Small-PKG

用途

- スイッチング電源
- DC/DC コンバータ
- 家電、ゲーム、OA 機器
- 通信、ポータブル機器

Main Use

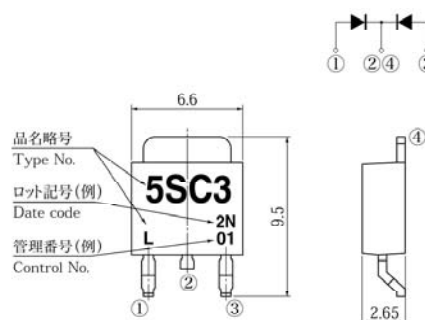
- Switching Regulator
- DC/DC Converter
- Home Appliance, Game, Office Automation
- Communication, Portable set

■外観図 OUTLINE

Package : E-pack

Unit:mm

Weight 0.326g (Typ)



外形図については新電元Webサイト又は〈半導体製品一覧表〉をご参照下さい。捺印表示については捺印仕様をご確認下さい。

For details of the outline dimensions, refer to our web site or Semiconductor Short Form Catalog. As for the marking, refer to the specification "Marking, Terminal Connection".

■定格表 RATINGS**●絶対最大定格 Absolute Maximum Ratings (指定のない場合 $T_c = 25^\circ C$)**

項目 Item	記号 Symbol	条件 Conditions	品名 Type No.	DE5SC3ML	単位 Unit
保存温度 Storage Temperature	T_{stg}			-55~150	$^\circ C$
接合部温度 Operation Junction Temperature	T_j			150	$^\circ C$
せん頭逆電圧 Maximum Reverse Voltage	V_{RM}			30	V
繰り返しせん頭サージ逆電圧 Repetitive Peak Surge Reverse Voltage	V_{RRSM}	パルス幅0.5ms, duty 1/40 Pulse width 0.5ms, duty 1/40		35	V
出力電流 Average Rectified Forward Current	I_o	50Hz正弦波, 抵抗負荷, 1素子当りの出力電流平均値 $I_o/2$, $T_c = 110^\circ C$ 50Hz sine wave, Resistance load, Per diode $I_o/2$, $T_c = 110^\circ C$		5	A
せん頭サージ順電流 Peak Surge Forward Current	I_{FSM}	50Hz正弦波, 非繰り返し1サイクルせん頭値, $T_j = 25^\circ C$ 50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j = 25^\circ C$		90	A
繰り返しせん頭サージ逆電力 Repetitive Peak Surge Reverse Power	P_{RRSM}	パルス幅10 μs , 1素子当り, $T_j = 25^\circ C$ Pulse width 10 μs , Per diode, $T_j = 25^\circ C$		330	W

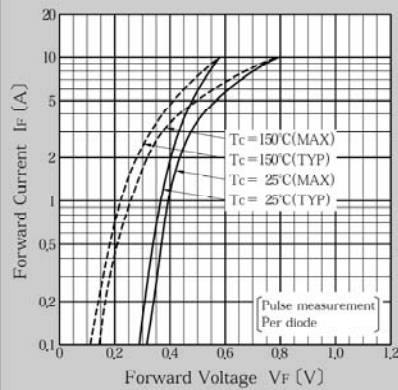
●電氣的・熱的特性 Electrical Characteristics (指定のない場合 $T_c = 25^\circ C$)

順電圧 Forward Voltage	V_F	$I_F = 2.5A$, パルス測定, 1素子当りの規格値 Pulse measurement, Per diode	MAX 0.45	V
逆電流 Reverse Current	I_R	$V_R = V_{RM}$, パルス測定, 1素子当りの規格値 Pulse measurement, Per diode	MAX 3.5	mA
接合容量 Junction Capacitance	C_j	$f = 1MHz$, $V_R = 10V$, 1素子当りの規格値 Per diode	TYP 190	pF
熱抵抗 Thermal Resistance	θ_{jc}	接合部・ケース間 Junction to case	MAX 12	$^\circ C/W$

■特性図 CHARACTERISTIC DIAGRAMS

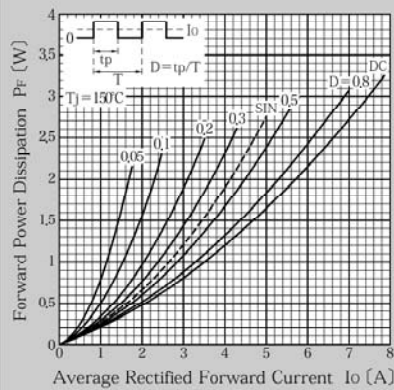
順方向特性

Forward Voltage



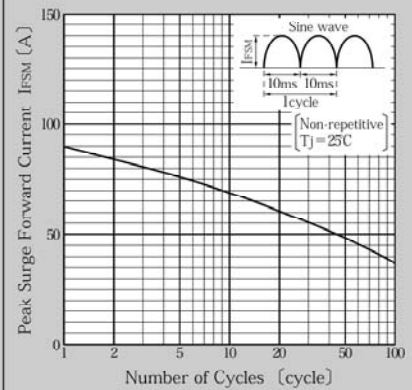
順電力損失曲線

Forward Power Dissipation



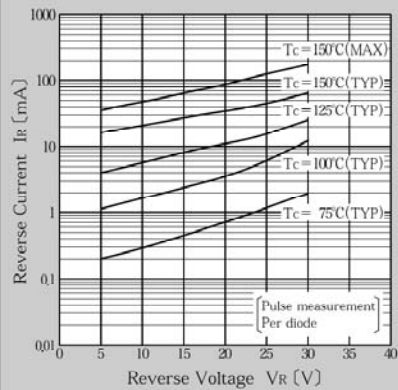
せん頭サージ順電流耐量

Peak Surge Forward Current Capability



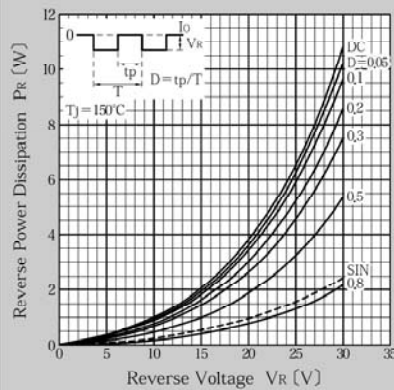
逆方向特性

Reverse Current



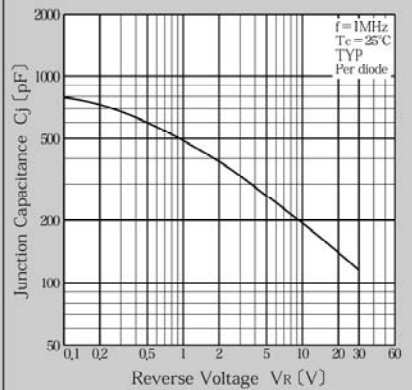
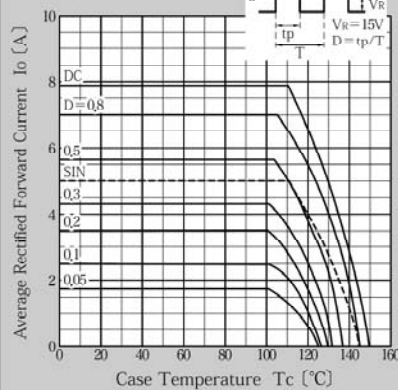
逆電力損失曲線

Reverse Power Dissipation



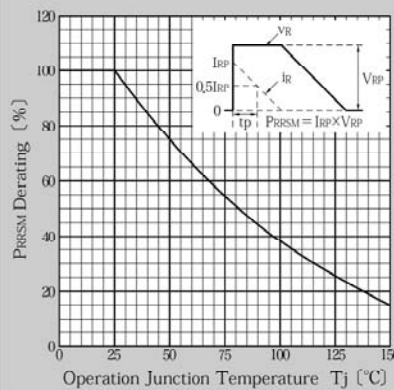
接合容量

Junction Capacitance

ディレーティングカーブ T_c - I_o Derating Curve T_c - I_o 

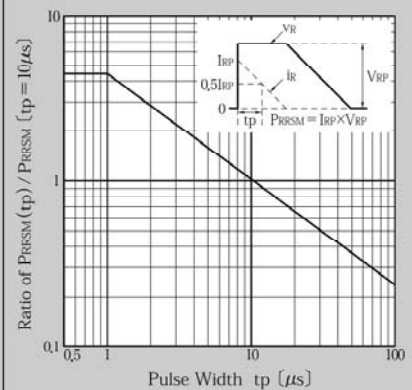
繰り返しせん頭サージ逆電力減少率

Repetitive Surge Reverse Power Derating Curve



繰り返しせん頭サージ逆電力耐量

Repetitive Surge Reverse Power Capability



* Sine waveは50Hzで測定しています。

* 50Hz sine wave is used for measurements.

* 半導体製品の特性は一般的にバラツキを持っています。

* Typical is a statistical average of the device's ability.

* Semiconductor products generally have characteristic variation.

* Typical is a statistical average of the device's ability.

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