# SIEMENS

Silicon Schottky Diode   BAS 140W

- General purpose diodes for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing

VPS05176
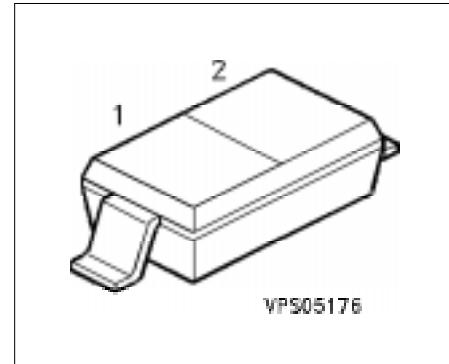
Type	Ordering Code (tape and reel)	Pin Configuration 1		2	Marking	Package
BAS 140W	Q62702-A1071	A		C	4	SOD-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	40	V
Forward current	I_F	120	mA
Surge forward current, $t \leq 10$ ms	I_{FSM}	200	mA
Total power dissipation $T_S \leq 113\,°C$	P_{tot}	250	mW
Operating temperature range	T_{op}	$-55 … +125$	°C
Storage temperature range	T_{stg}	$-55 … +150$	°C

Thermal Resistance

Junction-ambient[1]	$R_{th\,JA}$	≤ 260	K/W
Junction-soldering point	$R_{th\,JS}$	≤ 150	K/W

1) Package mounted on an epoxy pcb 40 mm x 40 mm x 1.5 mm/1cm^2 Cu.

Electrical Characteristics
at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_{(BR)}$ = 10 µA	$V_{(BR)}$	40	–	–	V
Forward voltage I_F = 1 mA I_F = 10 mA I_F = 15 mA	V_F	250 350 600	310 450 720	380 500 1000	mV
Reverse current V_R = 30 V V_R = 40 V	I_R	– –	– –	1 10	µA
Diode capacitance V_R = 0 V, f = 1 MHz	C_T	–	3	5	pF
Differential forward resistance I_F = 10 mA, f = 10 kHz	R_F	–	10	–	Ω
Series inductance	L_S	–	2	–	nH

Forward current $I_F = f(V_F)$
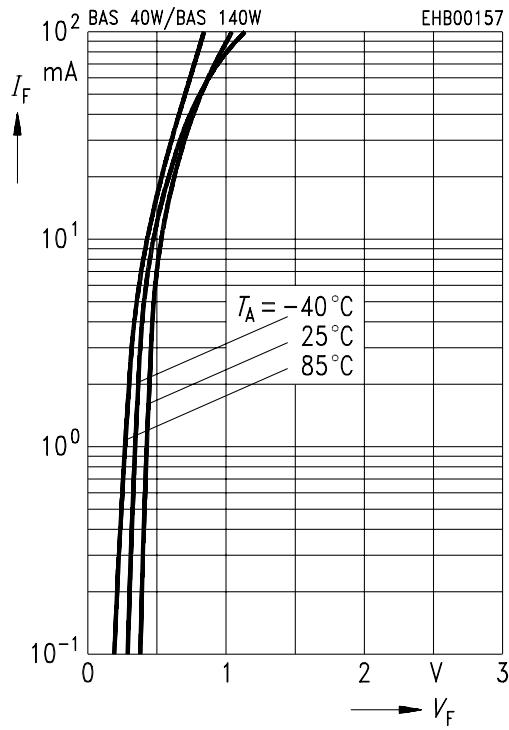
BAS 40W/BAS 140W   EHB00157

$T_A = -40\,°C$
25 °C
85 °C

Reverse current $I_R = f(V_R)$

BAS 40W/BAS 140W   EHB00156

$T_A = 85\,°C$

$T_A = 25\,°C$

Diode capacitance $C_T = f(V_R)$

BAS 40W/BAS 140W   EHB00159

Differential forward resistance $R_F = f(I_F)$

BAS 40W/BAS 140W   EHB00158
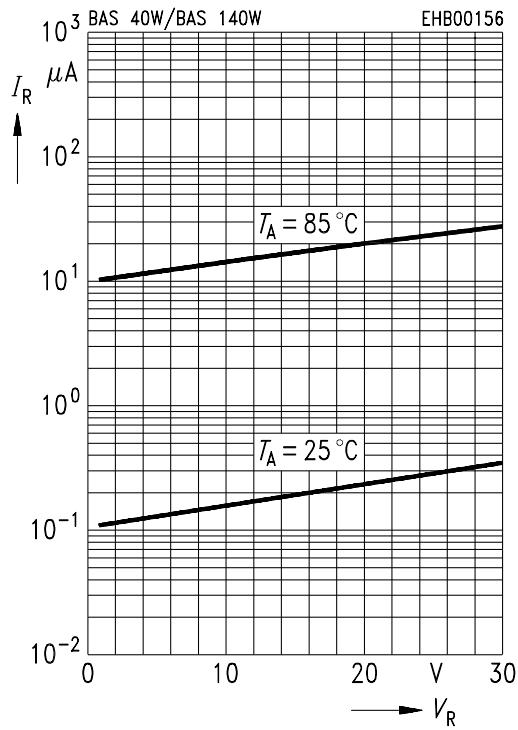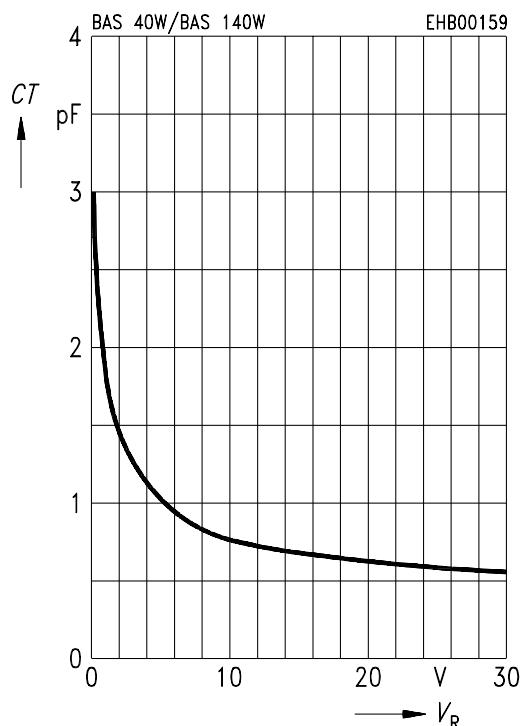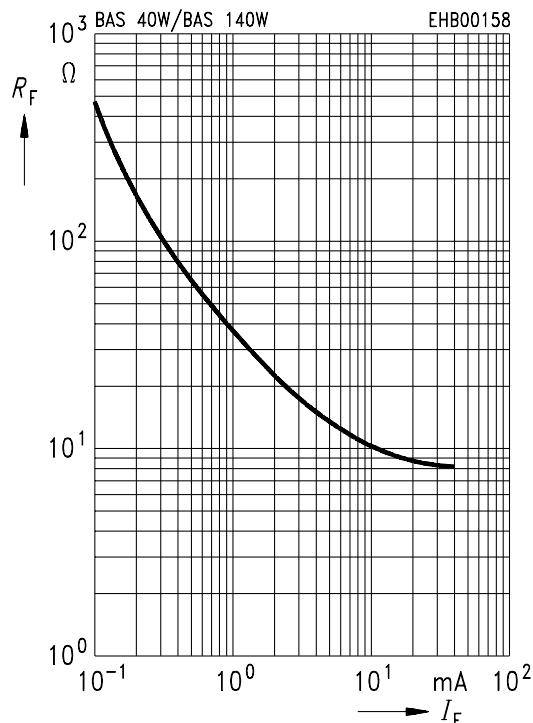
**Forward current** $I_F = f(T_A{}^*, T_S)$
* Package mounted on epoxy
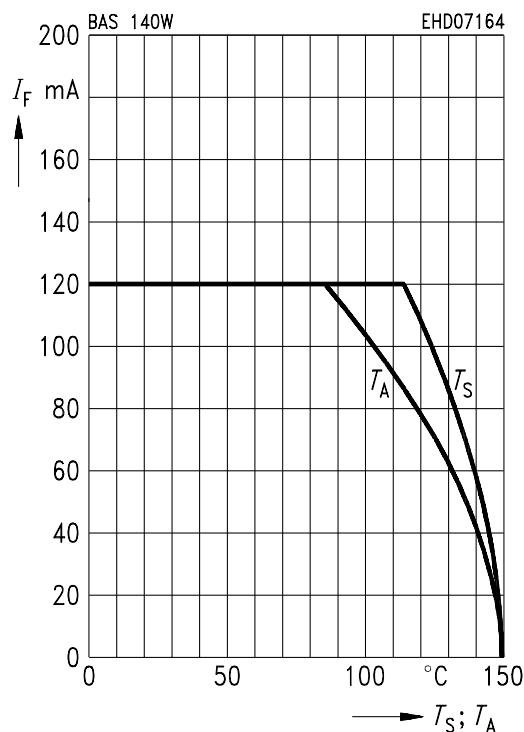
Permissible Pulse Load $R_{thJS} = f(t_p)$
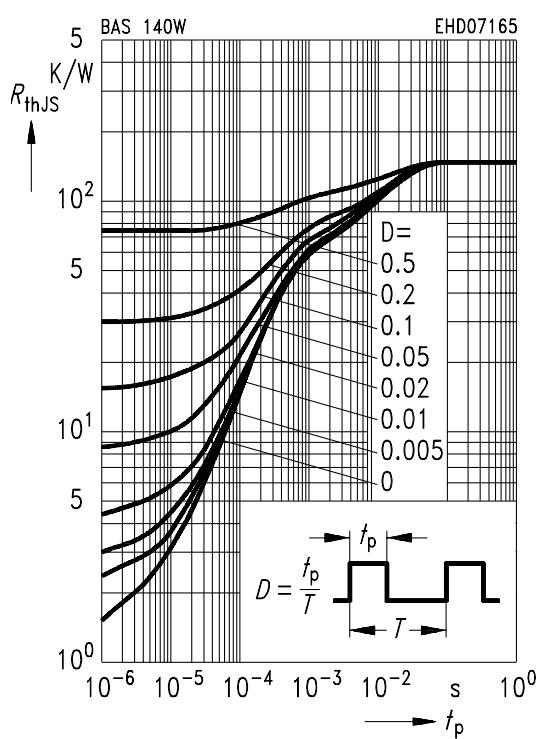
Permissible Pulse Load $I_{Fmax} / I_{FDC} = f(t_p)$