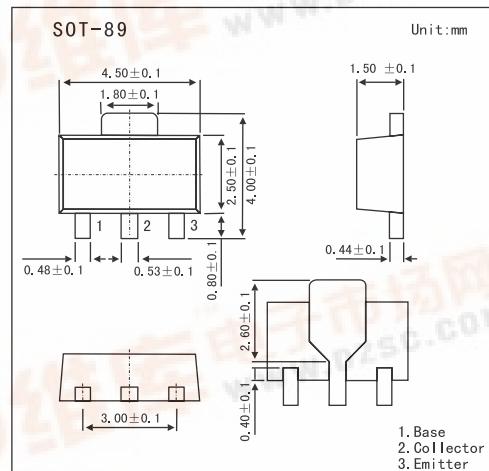


SMD Type

Transistors

NPN Silicon Epitaxia

2SD2403



■ Features

- High current capacitance.
- Low collector saturation voltage.

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	80	V
Collector-emitter voltage	V _{CEO}	60	V
Emitter-base voltage	V _{EBO}	6	V
Collector current	I _C	3	A
Collector current (pulse) *	I _{CP}	5	A
Base current	I _B	0.2	A
Base current (pulse) *	I _{BP}	0.4	A
Total power dissipation	P _T	2	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10 ms, duty cycle ≤ 50 %

2SD2403■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 80 V, I_E = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 6.0 V, I_C = 0$			100	nA
DC current gain *	h_{FE} 1	$V_{CE} = 2.0 V, I_C = 0.1 A$	80			
	h_{FE} 2	$V_{CE} = 2.0 V, I_C = 1.0 A$	100	200	400	
Base to emitter voltage *	V_{BE}	$V_{CE} = 2.0 V, I_C = 0.1 A$	630	670	730	mV
Collector saturation voltage	$V_{CE(sat)}$ 1	$I_C = 2 A, I_B = 0.1 A$		150	300	mV
	$V_{CE(sat)}$ 2	$I_C = 3 A, I_B = 0.15 A$		210	500	mV
Base saturation voltage	$V_{BE(sat)}$	$I_C = 2 A, I_B = 0.1 A$		0.89	1.2	V
Gain bandwidth product	f_T	$V_{CE} = 10 V, I_E = -0.3 A$		130		MHz
Output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1.0 MHz$		30		pF
Turn-on time	t_{on}	$I_C = 1.0 A, V_{CC} = 10 V$ $I_{B1} = -I_{B2} = 0.1 A$ $R_L = 5.0\Omega$		150		ns
Storage time	t_{stg}			652		ns
Fall time	t_f			40		ns

■ hFE Classification

Marking	GX	GY	GZ
hFE	100~200	160~320	200~400