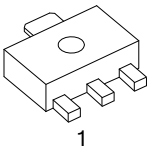
2SD1628

Preliminary ***NPN SILICON TRANSISTOR***

HIGH-CURRENT SWITCHING APPLICATIONS



SOT-89

■ FEATURES

* Low saturation voltage.
* High h_{FE}.
* Large current capacity.

■ ORDERING INFORMATION

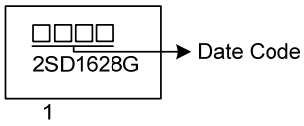
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD1628L-x-AB3-R	2SD1628G-x-AB3-R	SOT-89	B	C	E	Tape Reel

Note: Pin Assignment: E: Emitter B: Base C: Collector

2SD1628L-x-AB3-R
(1)Packing Type
(2)Package Type
(3)Rank
(4)Green Package

(1) R: Tape Reel
(2) AB3: SOT-89
(3) x: refer to Classification of h_{FE1}
(4) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



Copyright © 2016 Unisonic Technologies Co.,

■ ABSOLUATE MAXIUM RATINGS (T_A= 25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	60	V
Collector-Emitter Voltage		V_{CEO}	20	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	5	A
	Pulse	I_{CP}	8	A
Collector Dissipation		P_C	0.5	W
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

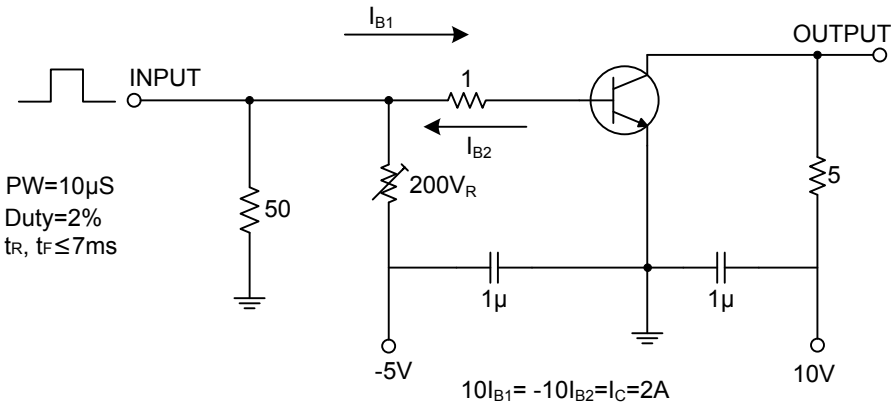
■ ELECTRICAL CHARACTERISTICS (T_A= 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C =3A, I_B =60mA			500	mV
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C =3A, I_B =60mA			1.5	V
Collector Cut-Off Current	I_{CBO}	V_{CB} =50V, I_E =0			100	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB} =5V, I_C =0			100	nA
DC Current Gain	h_{FE1}	V_{CE} =2V, I_C =0.5A	120		560	
	h_{FE2}	V_{CE} =2V, I_C =3A	95			
Output Capacitance	C_{ob}	V_{CB} =10V, f =1MHz		45		pF
Transition Frequency	f_T	V_{CE} =10V, I_C =50mA		120		MHz
Turn On Time	t_{ON}	See specified Test circuit		30		ns
Storage Time	t_S			300		ns
Fall Time	t_F			40		ns

■ CLASSIFICATION OF h_{FE1}

RANK	E	F	G
RANGE	120 ~ 200	160 ~ 320	280 ~ 560

■ SWITCHING TIME TEST CIRCUIT



Unit (Resistance:Ω, Capacitance:F)

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.